The Croonian Lectures

ON THE

CHEMISTRY AND THERAPEUTICS OF URIC ACID GRAVEL AND GOUT.

Delivered before the Royal College of Physicians of London,

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LECTURE I.

CHEMISTRY OF URIC ACID AND THE URATES.—COMPARATIVE PHYSIOLOGY OF URIC ACID.

MR. PRESIDENT AND GENTLEMEN,—The morbid phenomena associated with uric acid divide themselves naturally into those which have reference to gravel and calculus and those which have reference to gout. In the former uric acid is thrown down in the free state from the urine as concretions in the urinary channels; in the latter uric acid is thrown down in a state of combination, as sodium bi-urate, in the interior tissues of the body. In both conditions the precipitated substance necessarily acts as a foreign body, and tends to cause inflammatory incidents and obstructions in the parts implicated. In regard to gravel and calculus the whole of the morbid sequences are thus accounted for; no suspicion is entertained that uric-acid concretions lodged in the kidneys or bladder produce any disturbances above and beyond those which are due to mechanical injury; but in regard to gout uric acid is supposed to play a double part. It is commonly believed that, besides the irritation consequent on the precipitation of crystals of sodium bi-urate in the joints and elsewhere, uric acid floating in solution in the bodily fluids acts as a true poison; and it is assumed that a large part of the symptoms associated with the gouty state are directly due to this poisonous action. The soundness of this assumption will be hereafter called in question. It will be shown to be more probable that uric acid does not possess any inherent poisonous quality, and that when mischief arises from it that mischief is consequent on the acid being precipitated in the solid form as sodium bi-urate in the fluids or tissues of the body. The substantiation of this view would bring gout and uric-acid gravel into closer parallelism. Gout would then become, like gravel, in so far as its phenomena depend on uric acid, but of course no further, a disease of which the manifestations are proximately due to mechanical injury. On this view it becomes evident that the chemical reactions of uric acid and the urates, and especially those reactions which govern the holding in solution of these substances, have a more direct bearing on clinical and pathological problems than those conditions which have reference to the mode of origin of uric acid. In either case, whether uric acid be poisonous or not, the pathological history of uric acid is intimately bound up with its chemical properties, and a knowledge of these properties is an essential pre-requisite for a scientific apprehension of the problems that arise in connexion with uric-acid gravel and the uratic phenomena of gout.

The amorphous urate deposit of human urine forms a convenient starting-point for the study of the pathological chemistry of uric acid. This is the most familiarly known, and yet, perhaps, the least understood of all the urinary deposits. The amorphous urate is frequently deposited in the urine of perfectly healthy persons, especially during the colder seasons of the year, and at all seasons after sharp exercise and severe sweating. It is also habitually seen in the urine of persons suffering from slight catarrhal conditions or trifling dyspeptic derangements. Lastly, it is a common accompaniment of pyrexia, and of grave organic wasting diseases of all kinds. The amorphous urate deposit coincides with an acid reaction of the urine, and is never thrown down in a neutral or alkaline urine. It is recognised clinically by its disappearance when the urine is warmed. It is always more or less stained with the proper pigments of the urine, and its tint varies accordingly. Under the microscope it presents a granular appearance without any obvious crystalline structure. All this is matter of common knowledge. When we carry our inquiries further and ask, what is the chemical nature of this substance? and what are its physiological analogies and pathological relations? no clear answers are forthcoming. Indeed, such questions are nowadays scarcely asked at all. The amorphous urate deposit has for some time past been relegated almost to the position of a clinical curiosity, devoid of any real bearing on pathological and physiological questions. But if it can be shown that this substance is a representative body; that it typifies the exclusive mode in which nitrogen is eliminated in vast tribes of the animal series; that it represents the chemical combination, and the sole combination, in which uric acid subsists normally in the healthy organism; and that, moreover, the pathological troubles connected with uric acid are due to deviations, in one direction or other, from this normal combination,—then it becomes obvious that the chemical composition and reactions of the amorphous urate possess a very real interest both for the physician and the biologist. Before entering on this inquiry it is necessary to recall to your memories what is already known and established in regard to the chemistry of uric acid and its combination with bases. Uric acid is regarded by chemists as a bi-basic acid—that is to say, as an acid containing two atoms of replaceable hydrogen. It is represented by the formula $H_2(C_5H_2N_4O_3)$, or more simply as $H_2\bar{u}$. It forms, like other bi-basic acids, two regular orders of salts—namely, neutral urates, with the general formula $M_2\bar{u}$, and acid urates, or bi-urates, with the general formula $M\bar{H}\bar{u}$. These two orders of uric-acid salts were elaborately studied in Liebig's laboratory nearly half a century ago by August Bensch, in collaboration with an English student, Dr. James Allan.[1] So reliable and so complete have these researches been regarded that no chemist has, so far as I know, thought it necessary to repeat and verify them; and they still constitute our principal source of information with regard to these two classes of salts.

The *neutral urates*—$M_2\bar{u}$—were prepared by Allan and Bensch by dissolving uric acid in cold dilute solutions of the caustic alkalies, free from carbonates, and then boiling down the solutions in a retort until crystals made their appearance. The neutral urates are very unstable; they are decomposed by carbonates, and even by the carbonic acid of the air. Of late years these neutral urates have been made to figure prominently in certain theories of gout. Such theories, however, are on chemical grounds untenable. The neutral urates can only be produced in the presence of caustic alkalies and in the absence of carbonic acid and the carbonates. Caustic alkalies cannot, however, exist in the living organism, and carbonic acid and the carbonates are everywhere present. It would therefore seem impossible that the neutral urates should ever arise or subsist in the living body, or that they should ever play any part in the physiological or pathological history of uric acid; and until it can be demonstrated that these salts do actually exist in the body, or at least that they can be formed under conditions which are known to be possible in the living body, it is futile to frame theories in which these compounds are made to intervene. With these remarks, the neutral urates may be absolutely dismissed from our consideration, as having neither part nor lot in the vital history of uric acid, whether in health or in disease.

The acid urates, or bi-urates ($M\bar{H}\bar{u}$), are the most stable salts of uric acid, and tend strongly to assume the crystalline form. They are encountered pathologically in gouty concretions, of which the sodium bi-urate forms the distinctive constituent. The bi-urates do not occur in the unchanged urine, neither in health nor in disease; and when bi-urates are artificially introduced into normal urine they fail to maintain their integrity, and at once undergo a change of composition.[2] Nor is there any actual proof that uric acid ever exists as a true bi-urate in the healthy blood and interstitial juices; and it will be hereafter shown that when uric acid is brought into contact with these fluids it is not taken up as a bi-urate. It may therefore be affirmed that the bi-urates, although known to us as pathological products in gouty deposits, are not, strictly speaking, known to us as physiological constituents, neither in the blood nor in the urine. But inasmuch as uric acid, in some form of combination or other, does exist normally in minute quantities in healthy blood, and exists in much larger quantities in healthy urine, the question arises,

[1] Liebig's Annalen d. Chemie u. Pharm., vol. lxv., p. 181.

[2] For proof of this statement see my paper on the History of Uric Acid in the Urine, Medical and Chirurgical Transactions, vol. lxxiii., p. 260.

What, then, is this other form of combination, this normal and physiological combination, which is neither neutral urate nor bi-urate, in which uric acid exists in the healthy body? This question brings us back to the consideration of the amorphous urate deposit.

REACTIONS OF THE AMORPHOUS URATE DEPOSIT: IDENTITY OF IT WITH THE URINARY EXCRETION OF BIRDS AND SERPENTS.

The amorphous urate deposit, as we find it in the urine, is not a chemically pure article, and not only so, but the urine with which it is mingled entirely masks its most important reactions. In order to study the properties of this substance it is necessary, first of all, to separate it from the urine. This is effected by filtering off the sediment, and washing it thoroughly on the filter with rectified spirit, and then drying it. The deposit is still contaminated with pigment; but it is sufficiently pure for the display of its most striking reaction, and that is its behaviour with pure water. When the amorphous urate, thus purified, is mixed with a considerable volume of distilled water it is speedily disintegrated. A portion passes into solution in combination with the bases, and the remainder falls down as an insoluble precipitate of crystalline uric acid. This remarkable transformation may be witnessed in progress, under the microscope, in the following manner. A speck of the purified deposit is intimately mixed on a glass slide with a drop of distilled water, and protected with a covering glass. To keep the preparation thoroughly moist fresh supplies of water are from time to time insinuated under the covering glass. In the course of five or ten minutes beautiful ovoid crystals of uric acid begin to make their appearance. These grow and multiply until, in the course of half an hour or an hour, the entire field of vision is thickly studded with crystals; and the process goes on, provided the preparation be kept from drying, until the amorphous matter seems to be entirely changed into crystals of uric acid. The reaction here described may, according to my experience, be always demonstrated with every freshly collected sample of amorphous urate deposit. The rate of transformation varies a good deal. With fawn-coloured deposits the change is usually completed in from fifteen to twenty minutes; with the more deeply tinted deposits the time is longer, and extends to half an hour or an hour. The interest attaching to the amorphous urate deposit is greatly enhanced when we learn that the urinary excretion of birds and serpents displays identically the same reactions as the amorphous urate. The white mortar-like substance which constitutes the urinary excretion of birds and serpents is usually described as consisting of bi-urate of ammonia. This view is, however, based on a fallacy. The misapprehension has arisen from the excretion having been examined, not in the unaltered state, but after it had undergone secondary changes subsequent to its emission, either through bacterial decomposition or through contact with water. If the excretion be examined in the fresh and uncontaminated state, it is seen under the microscope to consist of minute spheres about the size of the white corpuscles of the blood. Some are twice this size, and a great many are much smaller. These spheres exhibit a radiated crystalline structure, and display a black cross with polarised light. When tested under the microscope with a drop of distilled water in the manner before described in the case of the amorphous urate, the spheres are seen to gradually melt away with abundant emission of colourless tablets of uric acid. When the excretion is treated with a large volume of water in a beaker, a portion goes into solution as bi-urate and the rest falls down as crystals of uric acid. In short, the urine of birds and serpents reacts with water precisely in the same way as the amorphous urate sediment, except that the transformation takes place more rapidly. It can, moreover, be shown that the difference in physical form between the two substances is a mere accident of molecular aggregation. For under certain conditions the amorphous urate deposit can be obtained in regular crystalline spheres scarcely distinguishable from the spheres of the urine of birds and serpents, and, conversely, if the urine of birds or serpents be dissolved in hot normal urine, and the solution be then rapidly cooled, the substance is reprecipitated as an amorphous tinted deposit undistinguishable from the amorphous urate sediment. These observations point to the conclusion that the amorphous urate deposit of human urine and the solid or semi-solid urinary excrement of birds and serpents are essentially one and the same substance. Now the question arises, What is the constitution of this substance Is it merely a mechanical mixture of bi-urate with varying quantities of free uric acid, or is it a definite chemical combination, representative of a new and third order of uric-acid salts, differing essentially from the two regular orders previously recognised? The elucidation of this question involved a difficult and somewhat protracted inquiry, to which I must now ask your patient attention.

CHEMICAL CONSTITUTION OF THE AMORPHOUS URATE DEPOSIT AND OF THE URINARY EXCRETION OF BIRDS AND SERPENTS.—THE EXISTENCE OF A THIRD ORDER OF URIC-ACID SALTS, OR QUADRI-URATES.

We are indebted to a former distinguished Fellow of this College, Dr. Bence Jones, who was, moreover, one of my predecessors in this office of Croonian lecturer, for the first real light on the chemical constitution of the amorphous urate deposit. His researches were published in the *Journal of the Chemical Society* for 1862. He there describes the action of water on the sediment. He shows that the portion of the sediment which is not dissolved by the water is pure uric acid, and that the portion which goes into solution is true bi-urate. He next gives the results of a quantitative analysis of three samples of the amorphous urate sediment, made especially with the object of ascertaining the proportion of uric acid to the quantities of the bases contained in them. He found in each sample that the uric acid was in excess of the quantity required to form bi-urates with the bases present. The proportion of this excess varied greatly in the three samples; but when the three analyses were thrown together, and the average struck, the mean amount of uric acid was found to be almost exactly double that required to form bi-urates with the sum of the bases present. He also calculated the corresponding proportions in four similar analyses previously made by Scherer. Here likewise the separate analyses gave the most discordant proportions; but again it so fell out that the average of the whole four analyses yielded a proportion of uric acid which was very nearly double the amount required to form bi-urates with the sum of the bases. These closely approximating averages, although drawn from numbers so divergent that their agreement could obviously only be due to a fortuitous coincidence, seem to have inspired Dr. Bence Jones with the happy conjecture that there existed a third order of uric-acid salts, of more complex constitution than the two previously known, and in which an atom of bi-urate was loosely combined with an additional atom of uric acid. He drew the inference that the amorphous urate deposit consisted of, or at least often contained, such a combination. In order to test the soundness of this conjecture he sought to form an artificial sediment of urates, which, when treated with water, would, like the amorphous urate deposit, be disintegrated into free uric acid and bi-urate. In this attempt he succeeded both with potash and soda. By dissolving uric acid in potash or soda ley, and then carefully adding acetic acid until the liquid became slightly acid, he obtained a dense white precipitate. This was caught on a filter, washed with alcohol, and dried. This substance was found to possess the characteristic properties of the amorphous urate deposit. It was granular in character, and was decomposed by water with abundant emission of uric-acid crystals. He made a quantitative analysis of two samples of the potash compound thus obtained. He found that the portion that went into solution when the substance was treated with water corresponded exactly with the theoretical formula of potassium bi-urate, and that the uric acid which remained undissolved approximated in amount to that which went into solution as bi-urate. Commenting on these results, he says: "It appears from these experiments that an artificial granular deposit may be formed—which is decomposed by washing with cold water or by boiling—into uric acid and acid urate of potassium. This granular substance may be considered to resemble the quadroxalate of potassa, which differs from the acid oxalate by containing double the amount of oxalic acid; and, following this nomenclature, it may be called "*quadrurate* of potassa." The general formula for the quadrurate—or, as it may be more euphoniously expressed, *quadri-urate*—following the analogy of the quadroxalates, would be $H_2 (C_5H_2N_4O_3) MH (C_5H_2N_4O_3)$, or, more simply, $H_2\bar{u}, MH\bar{u}$. According to this theory the action of water on the amorphous urate deposit and kindred compounds is to split them up into free uric acid, and bi-urates of the bases contained in them. If this theory be correct, the

quantity of uric acid thrown out by water should of course exactly equal the quantity retained in solution as bi-urate. With regard to this point, however, Dr. Bence Jones's analyses of the potash compound did not come out with the desired exactness. In the first analysis the proportion of uric acid separated by water as compared with that retained in solution as bi-urate was not as 1 to 1, as required by the theory, but as 1·27 to 1, and in the second analysis as 1·12 to 1. This discrepancy is considerably greater than could be accounted for by the necessary limits of error in the methods of analysis adopted; and it was impossible to avoid the impression that the proof adduced by Dr. Bence Jones of the existence of a true and definite chemical combination, corresponding with the hypothetical formula of a quadri-urate, was altogether inadequate. These substances, which were disintegrated by water, might, after all, be only intimate mechanical mixtures of bi-urates with varying quantities of free uric acid, and the action of water upon them might be explained simply as that of a solvent separating a more soluble ingredient from a less soluble ingredient.

Thirty years have elapsed since the publication of Dr. Bence Jones's researches. So far as they have had any influence on current views of the pathology of uric-acid they might as well have never been made. For although these researches have received formal mention in works on urinary chemistry, the deductions and inferences indicated by them have received no recognition, and have been entirely ignored in the numerous inquiries and discussions which have since taken place on the etiology of uric-acid gravel and gout. Until the subject was taken up by myself, no attempt had been made to repeat and verify the observations and experiments. Yet the main suggestion of Dr. Bence Jones's investigations—namely, that there existed a third order of uric-acid salts—is obviously one of high scientific and practical interest. The cause of this surprising neglect lay probably in the halting and even ambiguous terms in which he expressed himself in regard to his results. After giving a clear experimental proof of the disintegrating effects of water on the amorphous urate deposit, he qualifies his statement, without any attempt at explanation, in the following unsatisfactory manner: "In other experiments, the deposit, when frequently washed with cold water, gave no uric-acid crystals at all. Hot water also frequently dissolved only the urates, and caused the whole deposit to pass rapidly through the filter without leaving any uric-acid crystals behind." In the final summary of his "Results" he writes: "In conclusion, then, it appears that the amorphous deposits of urates in the urine has no constant composition. It is a mixture of different acid urates modified in crystalline form by other substances in the urine. ..... Moreover, uric acid is occasionally found in combination with these acid urates, forming quadrurates, and thus rendering the deposit still more liable to vary in its composition." Dr. Bence Jones did not return to the subject, though he continued for some years in active scientific work. I can only explain his abandonment of so promising a vein of inquiry on the supposition that he was deterred by the difficulty of obtaining a due supply of material for his experiments. He had to collect the amorphous urate deposit in small parcels at different times and from different sources, as opportunity offered. A supply of material gathered in this way of a changeable substance could not possess the purity and homogeneity necessary for the purposes of quantitative analyses. In taking up and continuing the investigation thus prematurely dropped by Dr. Bence Jones I was able to reach a point of vantage in regard to these difficulties. I soon learnt that the urinary excretion of the large serpents furnished an abundant source of material which was identical in reactions with the amorphous urate. I also succeeded, by a method to be presently described, in preparing at will from human urine plentiful and fresh supplies of the amorphous urate deposit. The questions I had to decide were these: Is the amorphous urate deposit, together with the urinary excretion of birds and serpents, a true and definite chemical compound? and does there exist a third order of uric-acid salts differing essentially from the two urates already known, and having a composition corresponding to the hypothetical formula of a quadri-urate? As the main argument of these lectures rests on the establishment of an affirmative answer to these questions, it is necessary for me to lay before you the experimental evidence on which I rely as sufficing for the purpose. The materials used in the investigation consisted of: (*a*) the amorphous urate deposit of human urine; (*b*) the urinary excretion of birds and serpents (both of these are natural products); and (*c*) artificially prepared imitations of these natural products, made in the laboratory. Two lines of analysis were pursued in each case. The first was to estimate quantitatively the amounts of the bases and of uric acid in the samples. The second was to proceed by way of what may be termed "water analysis"—that is to say, to decompose the substance with a large volume of water, and then to estimate respectively the amount of uric acid which was thrown out in the free state, and the amount which went into solution as bi-urate. If the quadri-urate theory be correct, these two amounts should be exactly equal.

I now proceed to lay before you the results of these analyses.

A.—ANALYSES OF THE AMORPHOUS URATE DEPOSIT.

It was found that samples of the amorphous urate deposit obtained from hospital wards or from private patients yielded on analysis results so inconstant that no conclusion with regard to the points under consideration could be drawn from them. In most samples the quantity of uric acid separated by water was larger than that retained in solution, but this excess presented no uniformity of amount. The explanation of this discrepancy lay in the fact, to be more fully noticed in my next lecture, that the amorphous urate, as it is found in the urine, exists under conditions of change, which tend to progressively liberate its uric acid; and as the sediment had to be collected in separate portions from different urines on different days until a sufficient quantity had been gathered for analysis, it is no wonder that gross variations in its composition were observed. It soon became evident that reliable data could not be obtained from materials collected in this way. This difficulty was, however, surmounted; and I succeeded, by the following process, in obtaining and having always at command an adequate supply of the amorphous urate in a fresh and unchanged state. Healthy urine of medium density is treated with successive additions of bicarbonate of potash or soda until it becomes slightly alkaline. It is next heated in a flask to the boiling point, and then shaken up for about a minute with excess of pure uric acid. The mixture is now thrown on a filter and the filtrate is cooled under a running tap of cold water. As cooling proceeds a dense voluminous precipitate forms, which is an exact counterpart of the natural amorphous urate sediment. The precipitate is separated by filtration, thoroughly washed on the filter with rectified spirit, and dried at blood heat. To obtain a product of uniform composition by this process requires a somewhat nice adjustment of the reaction. If the quantity of alkaline carbonate added be too small, and the alkalescence thereby induced be too faint, the precipitate is apt to be contaminated with free uric acid. On the other hand, if the alkaline carbonate be added too freely, and the resulting alkalescence be excessive, the precipitate is apt to be contaminated with bi-urate. These risks are greatly minimised by using the acetate of potash instead of the alkaline carbonate. The commercial acetate of potash has a slightly alkaline reaction, and it possesses a considerable power of conserving the integrity of the amorphous urate. I obtained a very uniform product by employing normal urine charged with acetate of potash to the extent of 3 per cent. The other steps of the process were the same as those above described. It was observed that if the filtrate was cooled rapidly the resulting precipitate had a finely granular character, just like that of the natural amorphous urate; but if the cooling was allowed to proceed slowly at the temperature of the room the precipitate fell in regular spheres with a radiated crystalline structure, resembling closely the spheres of the urinary excretion of birds and serpents. Samples of amorphous urate deposit prepared in these ways yielded to analysis very constant results. The water analysis was carried out in the following manner: The dried deposit, usually about 0·4 grm., was mixed in a beaker with 1000 times its weight of distilled water; the mixture was next slowly heated to about the boiling point, with constant stirring, until the whole went into solution. The beaker was then set aside for forty-eight hours. On cooling, the liberated uric acid fell out in large crystals. The clear supernatant liquor was then nearly all syphoned off, and the remainder, together with the deposited crystals, was thrown on a weighed filter. The crystals were washed very sparingly with cold water, and

then more freely with rectified spirit. Finally, the filter was dried and weighed. This gave me the weight of the uric acid separated by water.[3] The syphoned-off supernatant liquor, together with the washings from the filter, was then heated to near boiling, and strongly acidulated with hydrochloric acid, and then set aside for forty-eight hours.[4] The precipitated crystals were collected, dried, and weighed, as in the preceding case. When the analyses were conducted in this way, the amount of uric acid separated by water was found to be almost exactly equal to that retained in solution, as is shown in the following two sample experiments:—

TABLE I.—*Showing the Results of Water Analysis of two Samples of Amorphous Urate Sediment prepared by the Acetate of Potash Method.*

	First sample.	Second sample.
Uric acid separated by water ..	0·080 grm.	0·164 grm.
Uric acid dissolved as bi-urate ..	0·077 ,, ...	0·159 ,,

These results agree closely with the requirements of the quadri-urate theory. A complete quantitative analysis of a sample of amorphous urate sediment obtained by the bicarbonate of potash method gave the following results. The substance did not contain any lime or magnesia.

TABLE II.—*Quantitative Analysis of a Sample of Amorphous Urate Deposit prepared by the Bicarbonate of Potassium Process.*

Weight of substance used = 1·328 grm.

Uric acid	1·113 grm.
Potassium	0·065 ,,
Sodium	0·027 ,,
Ammonium	0·008 ,,
Moisture, organic matter, and loss	0·115 ,,
	1·328 ,,
Uric acid required to form quadri-urates with the bases present	1·102 ,,
Total uric acid found	1·113 ,,

These results agree in the closest manner with the supposition that the deposit was composed entirely and exclusively of quadri-urates of potassium, sodium, and ammonium.

B.—ANALYSES OF THE URINARY EXCRETION OF BIRDS AND SERPENTS.

1. *Urine of Birds.*—During a period of dry summer weather my servant collected for me a quantity of the excreta of a number of fowls kept in a large run. The pieces were gathered freshly day by day, and were at once dried in the sun on a sheet of paper. When quite dry the chalk-like stuff encrusting the fæcal masses was carefully chipped off with the point of a penknife and preserved in a stoppered bottle. In this way, in the course of a week, about four grammes of urinary excrement were obtained in a state of approximate purity. Qualitative testing showed that the substance contained ammonia. On incineration it yielded 8·68 per cent. of a strongly alkaline ash. This ash consisted almost entirely of potash and soda, with a small quantity of iron. There were also found in it minute traces of lime and silica and sulphuric and phosphoric acids. These traces, it was conjectured, were derived from contamination with the sandy materials strewn on the floor of the fowl run. For this reason the substance was not judged to be sufficiently pure for the purpose of a complete quantitative analysis, but it was perfectly suitable for water analysis. A number of the cleanest-looking pieces were picked out and divided into two parcels of about half a gramme each. These were finely powdered, and subjected to water analysis by the method already described. The results are exhibited in the following table.

TABLE III.—*Water Analysis of Fowls' Urine.*

	First sample.	Second sample.
Uric acid separated by water ..	0·160 grm.	0·136 grm.
Uric acid dissolved as bi-urate ..	0·165 ,, ...	0·133 ,,

It is seen that the results come out with great exactness in agreement with the requirements of the quadri-urate theory.

2. *Urine of Serpents.*—The urinary excretion of the large serpents is easily obtained from our Zoological Gardens in massive pieces, quite unmixed with the fæcal discharges and other extraneous impurities. Still it is difficult, or even impossible, to obtain the secretion in an absolutely unaltered state—as eliminated by the kidneys. It is liable after being voided to come into contact with the water used for cleansing the cages in which the creatures are confined; and water, as we have seen, speedily disintegrates it. Again, if the substance be not at once completely dried on the hot-water bath, it undergoes bacterial decomposition, and is thereby transformed into bi-urate of ammonia. This is the condition in which "serpents' urine," as supplied by the dealers, is generally found. Even if both these sources of change are avoided by taking proper precautions, there is yet another which no care can obviate. The large serpents void their urine at long intervals, varying from a week or ten days to six or seven weeks. During this long sojourn in the urinary passages the secretion undergoes slow changes which affect its chemical constitution. I have always found serpents' urine, when examined in the fresh state, to have a sharply acid reaction. Under these conditions a certain amount of decomposition of the urates, with liberation of free uric acid, is inevitable.[5] Accordingly, when samples of serpents' urine were subjected to water analysis, however carefully the samples had been collected and preserved, the amount of uric acid separated by water was always found to be considerably in excess of that which went into solution as bi-urate. The invariable presence in the secretion of free uric acid was thus demonstrated. The subjoined table exhibits some of the results obtained by water analysis of freshly gathered specimens of the urinary excrement of the boa:—

TABLE IV.—*Water Analysis of Four Samples of Serpents' Urine.*

	I.	II.	III.	IV.
Uric acid separated by water	0·128 grm.	0·110 grm.	0·204 grm.	0·215 grm.
Uric acid dissolved as bi-urates	0·117 grm.	0·085 grm.	0·141 grm.	0·140 grm.

It is seen that in each experiment the quantity of uric acid separated by water was in excess of that which went into solution as bi-urate; and that, moreover, the proportion of this excess bore no constant relation in the several samples. The urine of the serpent, when at length voided, would thus appear to consist of quadri-urates contaminated with a variable admixture of free uric acid. The explanation above offered to account for the discrepant results obtained by water analysis of serpents' urine would, however, not apply to a quantitative estimation of the uric acid and the bases found in the excretion. For although the changes indicated as occurring during the lengthened sojourn of the secretion in the urinary passages would produce a partial displacement of the relations between the uric acid and its attached bases, the quantities of these would remain unaltered, and they would still form in their due proportions part and parcel of the semi-solid excrement as finally voided. The following quantitative analysis of a massive and very pure specimen of the urine of the boa justifies the correctness of this explanation. The material used for the analysis was taken exclusively from the interior portions of the mass.

TABLE V.—*Complete Quantitative Analysis of the Urine of the Boa.*

Ten grammes yielded:—

Uric acid	8·280 grm.
Potassium	0·333 ,,
Sodium	0·106 ,,
Ammonium	0·192 ,,
Moisture, organic matter, iron, traces of lime, and loss	1·089 ,,
	10·000 ,,
Uric acid required to form quadri-urates with the bases present	8·171 grm.
Free uric acid	0·209 ,,
Total uric acid found	8·280 ,,

The results of this analysis came out closely in accordance with the requirements of the quadri-urate hypothesis. The quantity of uric acid over and above that required to form quadri-urates with the bases present, and which might be

[3] To get a true result it was necessary to take account of that small portion of liberated uric acid which was still retained in solution after complete precipitation. This was experimentally determined to be, at the usual temperature of the room, 0·0055 grm. per 100 cc. This amount was added to the quantity actually found on the weighed filter.

[4] The advantage of adding the acid when the solution is hot is that the precipitated crystals are much larger, and therefore more easily and perfectly collected, than when the acid is added in the cold. In the latter case the crystals were sometimes so exceedingly minute that it was impossible to avoid serious loss in the processes of filtration and washing.

[5] Herein no doubt lies the remarkable difference in the results of water analysis of the urine of the fowl and that of the boa. The fowl discharges its urine many times a day. There is no detention of it in the urinary passages, and therefore no time for the occurrence of appreciable secondary changes.

regarded as existing in the free state, did not exceed 2·5 per cent. of the total uric acid found.

C.—Analyses of Artificially Prepared Quadri-urates.

As already stated, Dr. Bence Jones succeeded in preparing compounds of uric acid with potassium and sodium, which were decomposable by water, by adding acetic acid to cold solutions of uric acid in potash or soda ley until a precipitate was produced. This method was, however, found to give very uncertain results. If the acetic acid was added too freely, the precipitate was contaminated with free uric acid; and, on the contrary, if too little acetic acid was added, the precipitate was contaminated with bi-urate. It was almost impossible to hit the mark with precision. The following process was found to yield much more uniform results: 300 cc. of a 3 per cent. solution of acetate of potash was heated to boiling in a flask, and then shaken up with 2 grammes of uric acid for about a minute. The mixture was filtered hot, and the filtrate rapidly cooled under a running tap of cold water. A dense voluminous precipitate formed. This was thrown on a filter, and washed first with rectified spirit, and then thoroughly with absolute alcohol, and finally dried at blood heat. The substance thus obtained had a coarsely granular appearance under the microscope, and it was rapidly decomposed when treated with water. If the cooling was allowed to take place more slowly in the warm chamber, or even at the temperature of a warm sitting room, the precipitate fell down in regular spheres, possessing a radiated crystalline structure, resembling very closely both in size and appearance the spheres of the birds' and serpents' urine.

The following table exhibits the results of analyses of this compound.

TABLE VI.—*Water Analysis and Quantitative Analysis of a Sample of Potassium Quadri-urate prepared by the Acetate of Potash Method.*

Water Analysis.

Uric acid separated by water	0·84 grm.
Uric acid dissolved as bi-urate	0·85 grm.

Quantitative Analysis.

		Proportions per cent.	
		Found.	Calculated.
Uric acid	0·198 grm.	89·75	89·60
Potassium	0·0226 grm.	10·25	10·40

The numbers in both these analyses of the potassium compound come out with almost perfect exactness in agreement with the quadri-urate theory of its composition.

The corresponding sodium compound was prepared by shaking up 1 grm. of uric acid with 100 cc. of a boiling hot 5 per cent. solution of acetate of soda, filtering hot, cooling the filtrate rapidly on ice, collecting the resultant precipitate at once on a filter, washing with absolute alcohol, and drying at blood heat. The operations have to be carried out as rapidly as possible, otherwise free uric acid is thrown out. Analysis of the sodium compound thus prepared yielded the following results.

TABLE VII.—*Quantitative Analysis of a Sample of Sodium Quadri-urate prepared by the Acetate of Soda Process.*

		Proportions per cent.	
		Found.	Calculated.
Uric acid	0·329 grm.	94·00	93·58
Sodium	0·021 ,, ...	6·00	6·42

Here, again, the quantities of uric acid and sodium found agree closely with the calculated amounts required to form a quadri-urate. The series of analyses just detailed furnish an adequate proof that the compound of uric acid which is decomposable by water is no mere mechanical mixture, but is a true and definite chemical combination, having a centesimal composition corresponding to that of a hypothetical quadriurate with the general formula $H_2\bar{u}$, $MH\bar{u}$. In deference to the authority of Dr. Bence Jones I propose to adhere to the designation quadri-urate, without, however, prejudging the question whether in reality the analogy with quadroxalate be a chemically sound one.

General Characters and Reactions of the Quadri-urates

The quadri-urates present themselves usually as amorphous powders; but the spheres of the birds' and serpents' urine are distinctly crystalline, and display a black cross when examined with polarised light. The quadri-urates are difficult to obtain in a state of chemical purity; they are apt, when produced artificially, to be mixed with traces either of free uric acid or of bi-urates and, when obtained from the urine, to be contaminated with pigment or with traces of extraneous saline matters. They cannot be dissolved unchanged in any simple menstruum. They are insoluble in absolute alcohol, ether, glycerine, chloroform, and the volatile and essential oils. When treated with hot water the quadri-urates first pass into solution in their integrity; but this integrity is only maintained for a brief moment, and they forthwith disintegrate into free uric acid and bi-urate. It is therefore impossible to purify them, as most other substances are purified, by repeated solution and reprecipitation. They are extremely unstable; and they tend to change in two opposite directions. In weak solutions of the alkaline carbonates or of the di-metallic phosphates they slowly take up an additional atom of base and are converted into bi-urates. On the other hand, in water, and in watery solutions of the neutral salts they are split up into free uric acid and bi-urate. These two reactions cover the behaviour of the quadri-urates in the blood and the urine respectively, and furnish a key to the chemical processes which culminate in the formation of gouty deposits and calculous concretions, as will hereafter be more fully explained. The only appropriate solvent for the quadri-urates is healthy urine. In acid urines they dissolve freely with the aid of heat, and are again precipitated unchanged on cooling. Such solutions are, however, not quite stable; after a time their uric acid is slowly, and at length completely, liberated. The quadri-urates are still more freely soluble in hot alkaline urines; and in these media they continue permanently unaltered if guarded against septic changes. When such solutions are made at boiling heat, and are saturated, they throw down on cooling bulky deposits which are identical in appearance and reactions with the natural amorphous urate sediment.

Comparative Physiology of Uric Acid.—The Evolution of Mammalian Urine.

The study of the amorphous urate, and of the urinary excretion of birds and reptiles, suggests some interesting reflections. We have seen that the amorphous urate deposit is substantially the same thing as the solid or semi-solid urine of birds and serpents; all these consist of the quadri-urates of potassium, sodium, and ammonium. But whereas in the urine of man and mammalia the quadri-urates are only an insignificant item amid a host of other ingredients, the quadri-urates constitute practically the whole of the renal excretion of birds and serpents. The urine of these creatures may be said to be exclusively composed of a substance identical with the amorphous urate sediment of human urine; or, to put it in another way, the amorphous urate is the physiological homologue of the entire renal activity of birds and serpents. The kidneys of birds and serpents are anatomically composed of the same structures as the mammalian kidneys; they are provided with the same kinds of secreting tubes and epithelial elements, the same curious Malpighian tufts and capsules—and yet how widely different is the product of their functional activity. It is not merely that there is a substitution of uric acid for urea as the final term of nitrogenous metabolism, but there is also the strongly contrasted simplicity of the urine of birds and serpents with the complexity of mammalian urine. In birds and serpents the renal function is presented to us in its primitive simplicity. In these creatures the kidneys perform one single and simple physiological act—namely, the elimination of nitrogen as uric acid. For, although the uric acid is excreted in union with bases, the quantity of these bases is the absolute minimum requisite to bring uric acid into a state of chemical combination, and thereby to deprive it of that strong crystalline character which otherwise would make its passage along the delicate exit tubules of the kidney a physical impossibility. The chlorides, phosphates, and sulphates, the lime and magnesia, the pigments, the large volume of water—all of which figure as prominent and even essential components of mammalian urine—are either wholly absent from the urine of birds and serpents, or are only present in such minute traces as might be derived from the lubricating mucus and epithelial débris with which the secretion is incidentally admixed. It would be interesting to trace the successive steps along which the evolution of the complex mammalian

urine took place from this simple beginning. We are familiar with much that has been said and written of mammalian descent from simpler types. The eyes and thoughts of biologists have, however, been chiefly fixed on the anatomical evolution. But there is assuredly also such a thing as a functional evolution. The anatomical evolution of the kidneys seems to have reached its term in the lowest vertebrate forms: the mammalian kidney presents structurally no essential advance on that of birds and serpents; but an immense functional evolution has taken place; and an examination of its progress through the tribes of fishes, amphibia, marsupials, and lower mammals, up to man, would prove an instructive biological study. The results of such a study would probably show that the evolution of mammalian urine turned mainly on the point that the mammalian plan required that the renal excretion should be voided, not in the solid or semi-solid form, but in the liquid form, as a watery solution. This modification would at once necessitate the discarding of uric acid as a vehicle for the elimination of nitrogen. Uric acid and its compounds are strongly characterised by sparing solubility, and on no terms compatible with the conditions prevailing in the animal economy could the requisite quantity of uric acid be got into solution in a watery urine. Urea, on the contrary, is an extremely soluble substance. In regard to the prime function of the kidney, therefore, nature solved the problem easily by substituting urea for uric acid. But why was not the problem solved completely? Why was there left in mammalian urine this small and apparently purposeless, but to man very mischievous, residuum of uric acid? No satisfactory answer can at present be given to this question. It seems not impossible that the explanation lies in the fact that the mammalian type—the most recently evolved of the vertebrate types—has not yet, in this particular, reached its ideal perfection. A good deal may, I think, be said in favour of this conjecture. The occurrence and proportion of uric acid in the urine of the various tribes of mammalia are remarkably inconstant. Meissner states that the urine of the carnivora does not always contain uric acid; in the urine of dogs and cats it was repeatedly found to be altogether absent. According to the same authority uric acid is only found regularly in the urine of these animals when fed on flesh and in the fasting state; it disappears when they are fed on food poor in albuminoid matters. Stadthagen found that in the urine of dogs fed on flesh the proportion of uric acid to urea ranged between 1 to 280 and 1 to 800. In the urine of rabbits uric acid is sometimes present and sometimes absent. Salomon found it always present in the urine of the pig, but only in small quantity; and its proportion to urea was only in the ratio of 1 to 150. In the case of man the quantity of uric acid excreted presents great individual variations both in regard to its absolute quantity and in regard to its proportion to urea. The ratio of uric acid to urea in human urine appears to range between 1 to 30 and 1 to 50, and the ratio, according to Marès, is special for each individual. Dr. Haig estimates this ratio as 1 to 33, and he regards any deviation in the direction of *plus* or *minus* from this ratio as due either to temporary retention of uric acid in the body or to elimination of previously stored uric acid. If we look broadly at the renal function throughout the animal series, we see that in essence it consists in a provision for the elimination of waste nitrogen. This is a function of capital importance and necessity in the nutrition of animals, comparable to the excretion of carbon by the lungs; and, according to all physiological analogies, it must be at bottom one and the same throughout the animal kingdom. Starting from the highly complex albuminoid molecule, and descending by a train of intermediate steps, the histolytic process ends in some comparatively simple crystalline azotised body. The precise nature of the final term in the histolytic transformation is apparently of small significance, and seems to depend on what may be described as the general convenience of the economy. It may be urea, uric acid, hippuric acid, or guanin, or a mixture of all these. And it is reasonable to assume that all these bodies are physiologically homologous, and that their broad physiological relations are identical. What urea is to the mammal, uric acid is to the bird and serpent; what urea is to man, urea with hippuric acid is to the horse and ox. The office of the kidneys is to separate the final term of proteid metabolism, whatever that final term may be. These considerations point to the idea that the residuum of uric acid in mammalian urine may be something in the nature of a vestigial feature, analogous with the vermiform appendix, the ductus arteriosus, or the ear-point. These rudimentary structures are now regarded by biologists as indications of the line of ontological descent. On this view the presence of uric acid in the mammal's urine should be regarded as a "memory" of some ancestral form which eliminated its nitrogen as uric acid. The extreme inconstancy of uric acid, both in regard to its presence and its proportion in the urine of different species and of different individuals of the same species, agrees perfectly with this theory, for all vestigial structures are conspicuous for their inconstancy. Such structures also, like uric acid, although impotent for good, are sometimes powerful for evil.

AN ABSTRACT OF

The Hunterian Lectures

ON

CERTAIN DISEASES OF THE BREAST.

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LECTURE I.

MR. PRESIDENT AND GENTLEMEN,—My first duty is to thank you for the honour you have done me in placing me in the position to address you. "Diseases of the Breast," as far as these lectures at the College are concerned, have been quite an untrodden path for many years. For some time my attention and interest have been directed to certain little-known affections of this most important organ and to the difficulty often experienced in their diagnosis. Hence the choice of my subject; and I will endeavour to bring before you some of the more recent observations that have been made to help us to overcome these obstacles. Since the days of Sir Astley Cooper, Sir Benjamin Brodie, and Mr. Birkett, whose names are indelibly bound up with these diseases, pathology has made such strides that their terminology is considerably altered; but the foundations laid by these observers remain unshaken, and we look back with reverence on their work, which remains uneffaced by time.

Chronic mastitis develops usually in relation with lactation, and is of very great interest because of the difficulty in diagnosis. In many cases suppuration takes place, forming the "chronic encysted abscess." About the period of weaning these indurations are usually met with, and they may remain quiescent for a long period, suppurating in a later pregnancy or lactation. Injury may be a cause, and Lucas-Championnière considers that the pressure of stays is responsible for some of these inflammatory thickenings. The evidence is rather against this supposition, as we find that the upper half of the gland is more often affected. The clinical forms vary considerably. The inflammatory swelling may be first manifest as a small, hard, lobulated thickening, occurring towards the periphery of the gland, with a well-defined outline, and the skin quite free over it. It may be a little painful, but there will be deep tenderness on pressure. This may resolve or remain for an indefinite time as an induration, but without any marked tenderness. Many of these swellings are probably the same as Sir Astley Cooper's chronic mammary tumour, where absorption has ensued at a subsequent pregnancy. The usual sequel is for the induration to enlarge, with an increase of tenderness on deep pressure, a symptom laid great stress upon by this observer. If deeply placed towards the periphery, there may be no adhesion of the skin or retraction of the nipple, but, if central, the latter is very commonly present. Castex and Reclus comment upon its well-defined margin, and consider this sign absolutely diagnostic. Should softening become more marked and the swelling more superficial, there may

be some œdema and adhesion of the skin, but redness is quite the exception; the pus evacuated is thick and creamy. These inflammatory swellings may occur in several lobules, the cavities produced by suppuration inter-communicating and connected with the exterior by sinuses. The axillary glands may enlarge, but this is rare. Lucas-Championnière quotes a case where the axillary glands enlarged with one of these indurations, and suppurated without any change taking place in the breast. If injury is the exciting cause, suppuration is unusual. The interest of this lesion is in its diagnosis, which has to be made—(1) from a localised chronic interstitial mastitis (this has not œdema of the skin or adhesion, and has not the characteristic tenderness; the tendency to be bilateral may be an additional factor in confirmation); (2) from tuberculous mastitis (in tubercle the margin is not so well defined, there is less tenderness on pressure and glandular enlargement is more constant; the pus, instead of being creamy, will contain cheesy masses, and there may be a history of tubercle); and (3) from tumours. Errors in diagnosis have led to the sacrifice of the gland on the supposition that a solid tumour was being removed. It may be perhaps more often confused with a scirrhus, especially if the inflammatory swelling be accompanied by glandular enlargement, as in both we may have a localised hard tumour following a blow, with adhesion of the skin and retraction of the nipple. Sir Astley Cooper describes two such cases sent to him as "scirrhus," but he found deep-seated elasticity, with tenderness on pressure, confirming his opinion by evacuating pus on incision. In making the diagnosis we must take into account (*a*) whether the tumour has formed in relation with lactation; (*b*) the presence of deep tenderness on pressure; (*c*) the age of the patient and the rate of growth; (*d*) the margin of the growth, whether well defined or not; (*e*) the resistance of the tumour, if elastic, or of a wooden hardness. Reclus gives the following to illustrate the difficulty:—"A woman of twenty-nine, in good health, had a lump the size of an egg, with a well-defined margin, but a granular condition of the gland over it. There was no elasticity or fluctuation. The axillary glands were enlarged. The skin and nipple were normal, and there was no pain or tenderness on pressure. The points against carcinoma were the age, absence of adhesion of the skin, and although the tumour was large, it had well-defined limits and the nipple was natural. In favour of carcinoma was its extreme hardness. Pus was obtained on an exploratory tapping. The history was that the patient had been confined six years previously, and the infant had been suckled for nineteen months. After weaning the child a lump was noticed, which had persisted and increased in size recently." If deep seated and well defined, it may be considered a cyst; but here there would be no history of lactation, and other evidence pointing to mastitis would be present. It is possible for the swelling to strongly suggest a cysto-sarcoma.[1] "A. D——, aged thirty-seven, was under the care of Mr. Clutton. Three years before she noticed a small lump in the right breast during lactation, which remained stationary for two years. Then it increased in size, especially in the last three months, but without pain until the last few weeks. The right breast was very prominent and large, and its margins sharply defined; it was lobulated, particularly at the upper and outer part. The skin over it was smooth and glistening, rather dusky in colour, but not at all adherent, and there were large veins coursing over its surface. It moved freely on the deep tissues, was very elastic, but fluctuation was not certain. There were no enlarged glands. On tapping pus was drawn off, and after incision the lump proved to be a large loculated abscess cavity, with creamy, somewhat offensive pus."

As regards treatment, the moral to be drawn from the above facts is that no breast, where there is the possibility of a chronic abscess, should be removed until an exploratory puncture has been made. If pus is obtained, it should be evacuated by incision. Should no pus be got, and yet there is still a likelihood of the mass being inflammatory, an exploratory incision should be performed.

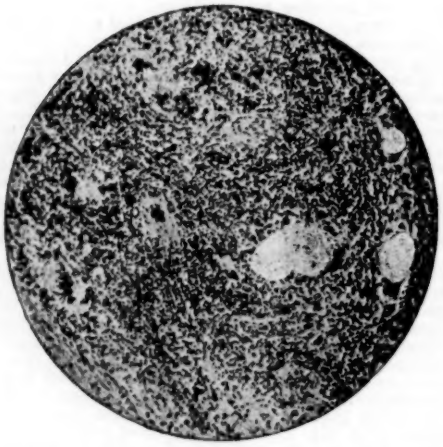
Tuberculous mastitis is not nearly so rare as has been supposed. It has been described by Sir Astley Cooper[2] as "scrofulous tumour"; by Velpeau[3] as "lymphatic or tuberculous tumour"; by Billroth,[4] Ohnacher,[5] Klotz,[6] and especially Dubar.[7] About half the cases occur secondary to other tuberculous lesions, especially pulmonary. If the disease is primary, there is as a rule a strong hereditary taint. Of eight cases, one had suspicious signs at the apices, and another had had a pleurisy eight years before. In six of these there was a strong tuberculous family history, in another the woman's husband died of phthisis, and in the other there was no history. Among other causes, the malady may arise from injury; one case was dated from a squeeze received eighteen months before, and another from a blow six weeks before.[8] Pregnancy and lactation are considered by many (Mandry, Park, Dubar, and Delbet) to be the chief exciting causes. In the cases of Orthmann and Habermass it developed during lactation, and seemed progressive along the ducts. In two cases I have found that the deposit has arisen in relation with indurations, which have persisted through several pregnancies without becoming absorbed. The disease usually affects women. In English literature I cannot find one in a male; but Delbet,[9] out of thirty-seven collected cases, found two in men. Of these cases, he knew the ages in thirty-two, more than half of which were between twenty-five and thirty-five. Of twelve others I have collected, ten were between twenty and forty. Of the whole number (forty-nine), there is not a single instance of the disease occurring under puberty. Eight of my collected cases were married women, and of these three were sterile. A larger proportion of cases have been met with on the left side. Velpeau, in his account of tuberculous tumours, describes "disseminated tubercles" and a "purulent lymphatic tumour." Most modern observers practically endorse this statement, and agree that the lesions are found under two forms—the confluent and the disseminated. The confluent is the more frequent of the two, having the form of a single, ill-defined, bossy tumour, moving with the breast on the chest wall. Its edge, instead of having the well-defined boundary of the last form, very often sends off processes into the rest of the gland like a carcinoma. The skin may or may not be adherent. The nipple may be retracted, especially when the disease is centrally placed. The disseminated type is rarer, existing in the form of scattered nodules between which the tissue may or may not be sound. The nodules tend to run together, ultimately becoming the confluent form. Ohnacher considered that this form was secondary to the confluent, and was due to new foci springing up around the primary centre. Mandry[10] describes two forms of primary tubercle: 1. A low inflammation with induration, caseation, softening, &c.—very chronic,—abscesses with retraction of nipple and enlarged glands. This agrees with the confluent type of others. 2. The intra-mammary cold abscess, generally combined with tubercle elsewhere.

Miliary tubercle of the breast, up to the present date, has not been described. In the confluent form the rate of increase is very variable, in some chronic, in a few running quite an acute course. Before long softening takes place, leading to the formation of curdy pus, which makes its exit, leaving sinuous tracts, which communicate by inter-communicating ragged cavities. No case has so far been recorded of calcification occurring. A general fibroid change may ensue, which I have seen in a case (under the care of Mr. Pitts) in association with a well-marked cheesy nodule. Of course, here it is possible that the tubercle was secondary to the fibroid change, but the fact of the latter being unilateral allows us to think that it was induced by the tubercle. Delbet has shown that the outer segment of the breast is more often affected, and in my small number of observations there is to be noticed about the same proportion. The axillary glands are usually involved, and in some cases softening takes place much more rapidly in them than in the breast. The onset of the disease is generally insidious, and is therefore not noticed. Sir Astley Cooper remarks on this indolence developing without pain and scarcely any tenderness on pressure. Delbet says there is little or no pain, but in all the cases I have noted there has been complaint of pain, one describing it as a stabbing pain, most of them laying

[1] Clin. Chirurg., p. 429.
[2] Illustrations of Diseases of the Breast.
[3] Diseases of the Breast: Transactions of the Sydenham Society.
[4] Deutsche Chirurgie.
[5] Der Tuberculose der Weiblichen Brustdruse: Archiv für Klinische Chirurgie, 1883.
[6] Archiv für Klinische Chirurgie, Band xxv.
[7] Des Tubercules de la Mammelle. Thèse de Paris, 1881.
[8] Hebb: Transactions of the Pathological Society, vol. xli.
[9] Duplay et Reclus: Traité de Chirurgie, vol. vi.
[10] Beiträge zur Klin. Chir., 1891, vol. viii.

stress upon its intermittence. There may or may not be localised tenderness. Loss of flesh may occur, and other symptoms, as cough or hæmoptysis may be present. If the disease is primary, the virus may be introduced either through some fissure causing tuberculous infection of the connective tissue, or, what is commoner, it enters by the ducts, setting up epithelial changes, these being attended by connective-tissue infiltration. Krammer quotes a case where there was a tuberculous ulceration of the nipple

FIG. 1.



succeeded by disease of the ducts. Histologically we find the acini and small ducts surrounded by small round cells, and the epithelium multiplying with some dilatation of the acini. The peri-acinous infiltration increases in amount, and at the same time there is a gradual breaking up and disappearance of the gland elements; we have now a tuberculous nodule in which giant cells, which vary in number, never being numerous, are to be seen. (Fig. 1.) Degenerative changes soon ensue in the centre, while the

FIG. 2.

infiltration progresses at the margins. The tubercle is not met with in the "miliary" form, but only as an infiltration. Dubar has described changes in the endothelium of the vessels, causing blocking and subsequent necrosis, as in syphilitic gummata. In the walls of some of the larger ducts we may find localised nodules. (Fig. 2.) In a case where the connective tissue is first involved we have almost the same changes as before, without necessarily the epithelial proliferation. Bacilli are rarely to be found, but I do not think their absence prevents us from diagnosing a case as "tuberculous" when there is a marked family history and characteristic caseous pus from the softened mass. The diagnosis has to be made (1) from a simple chronic mastitis, (2) from some cases of chronic interstitial mastitis, and (3) from carcinoma. From the latter it is very difficult in some cases.

"L. B—— (admitted under Sir William MacCormac), aged thirty-eight and married, whose mother was said to have died of phthisis, had an abscess in the left breast ten years before, and as a consequence had not used it since for suckling. Her youngest child up to within a few weeks before had been suckling the other breast. At this time she noticed there was some thickening in the left breast; this was hard and nodular, infiltrating at its margins. It rapidly increased in size, the skin becoming adherent, but there was no enlargement of lymph glands. The nipple was retracted, but this was of no value, as it had been so for years." The acute development and thickening strongly suggested carcinoma, and the gland was amputated; but on section it proved to contain small broken-down cavities which, histologically, were shown to be tuberculous.

Reclus[11] quotes three cases, of which the following is very characteristic:—"A woman aged forty had a bossy tumour about the size of an egg, very hard, and with no definite margin. The skin was involved and puckered, and the glands were enlarged. So certain was the diagnosis here of cancer that the operation had actually been fixed when suddenly hæmoptysis supervened. The tumour later softened and discharged curdy pus." In none of the cases was there any fluctuation. Habermass describes a case showing a mistaken diagnosis in the other direction, where what he considered tubercle proved to be carcinoma, with many spots of softening. If the disease be primary, we may consider that it will progress locally and involve lymphatic glands, or be followed by other lesions, particularly of the lungs. Whether it is succeeded, if left alone, by acute miliary tuberculosis there is no evidence, such a thing not having been recorded. Judging by analogy from what happens in other organs, such a sequel is very unlikely. Knowing that the disease is progressive, we should not hesitate to remove the organ. Of six cases (quoted by Dalbet) after operation two remained under observation a long time without recurrence, one recurred after nine months, and another after three years. Two of them died of pulmonary phthisis. I can only speak of one of the cases I have observed. Here recurrence took place in the scar after a few months, but she has since remained for one year quite well. If the breast is secondarily affected, it is useless to operate, except in those cases where the local destruction is hostile to the patient's welfare, the disease elsewhere being quiescent.

Chronic interstitial mastitis may be met with at all ages, but especially between forty and fifty. It is rare in young women; but I have seen two well-marked cases at nineteen and twenty years of age. It is rarely seen in man. One very typical case recently came under my notice in a man of thirty-six, where both breasts were involved. The disease may be due to: (*a*) Injury; (*b*) disorders of menstruation, many of the cases giving a history of dysmenorrhœa, the breasts at the same time being painful and tender; (*c*) celibacy appears to be a potent factor (of seventeen cases twelve were in single women, of the five married three were sterile, one had four children, and the other not known); (*d*) previous inflammatory trouble seems to have little or no relation to this chronic disease.

The course of this disease is very slow: König says that it is rarely acute. One breast becomes affected first, to be followed by the same change in the opposite one. There may be pain in the breasts at the menstrual periods, and tenderness. The skin and nipple are not affected. The axillary glands are not enlarged. The changes in the breasts may be diffuse or circumscribed. Of the diffuse forms we have: (1) Abundant development of soft fibrous tissue uniformly distributed, and at the same time almost complete disappearance of true breast substance; (2) the formation of firm fibrous tissue, the glands being small, cake-like, and very hard, and associated with small cysts scattered through this new formation.

[11] Clin. Chir. de l'Hôtel Dieu, 1888.

Although the change may be diffuse through the gland, we have localised nodules, up to the size of a walnut, very hard. These have been described by Phocas as "maladie noueuse." If they are of any size, they are probably cystic with thick walls. These hard fibrous nodules resemble the benign tumours, fibromata and adeno-fibromata. König and Kennedy think that the latter are actually due to chronic inflammation, the nodules becoming encapsuled, and so isolated; but such a view is very doubtful.

FIG. 3.

Phocas makes a special form of "diffuse mastitis," which occurs about the climacteric, and resembles "diffuse cancer." Most of the gland is involved, and radiating processes are set into the tissue around. The circumscribed variety is perhaps more frequent, and is known by a number of names: "chronic lobular interstitial mastitis" (Beck), "chronic mammary tumour" (Sir Astley Cooper), "partial hypertrophy" (Velpeau), &c. It has somewhat the form of a wedge, with its apex to the nipple, and

FIG. 4.

may be smooth or nodular. Its edge is usually well defined, and there seems to be a predilection for the outer half of the gland to be affected. The terminations in both the diffuse and circumscribed forms may be: (1) Complete atrophy of the whole gland or part affected from the formation of the fibrous tissue, *sclerosing mastitis*; (2) the production of different forms of *cysts*. Histologically the first change is a multiplication of the epithelium lining the acini and small ducts with some dilatation, particularly of the latter. (Fig. 3.) The acini tend to disappear, as is normal, at involution of the gland. In relation with the epithelial proliferation there is a localised round-celled infiltration in the connective tissue. This epithelial increase is supposed by Nocard to be due to an organism allied to the streptococcus which he has isolated in the infective mammitis of cows. In the soft diffuse form there is to be found only a soft fibrous tissue arranged in a meshwork of bundles of fibres, the gland part

FIG. 5.

almost completely disappearing except for a few dilated ducts. In the firm, diffuse, and the circumscribed forms the tough fibrous tissue compresses the glandular part, so that the cells are contained in quite narrow spaces. The sclerotic changes begin in the situation of the basement membrane (Fig. 4), and it may seem in sections that this new fibrous tissue is arranged in the form of rings with a looser connective tissue between them. (Fig. 5.) By addi-

FIG. 6.

tions to this fibrous tissue distinct nodules may be formed. (Fig. 6.) In other cases this nodulation is not very evident, the whole breast being made up of coarse bundles of fibres with scanty nuclei. The sclerosed tissue may undergo calcification, converting the gland into a stony mass. Gross has seen two cases in elderly women. Bryk, in Langenbeck's *Archives*, records a petrified breast due to the deposit of lime salts in the stroma causing atrophy of the

ducts and acini. Pillet has described a bony or calcareous formation in relation with a fibrous and cystic tumour in the gland, the cysts being filled by vegetations and the calcareous material in the fibrous tissue round. A case almost like the above came under my care, in a woman of forty-eight, where there was a calcified nodule in the upper part of the right breast, and a symmetrical one in the other breast, the lumps being patches of chronic lobular interstitial mastitis. Specimen 4747 C in the College Museum shows calcareous changes in the connective tissue around small cysts. Although described as "scirrhus," its appearance strongly suggests that it is non-cancerous, but due to chronic inflammation.

Lectures

ON THE

OPERATIVE TREATMENT OF ENLARGEMENT OF THE PROSTATE.

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LECTURE III.[1]

THE earliest record of McGill's operation, or supra-pubic prostatectomy, is in the year 1827, when Amussat excised a valvular median lobe during the performance of lithotomy. As, however, I have not been able to ascertain any particulars with regard to the result, I have merely retained the case for its interest, and have not included it with the rest. Of these, the first two were performed by Dittel in February, 1885, and February, 1886, respectively; Trendelenburg came next in May, 1886, and Belfield in the following month; then Benno Schmidt in August of the same year, and Belfield, Trendelenburg, and Benno Schmidt again. McGill's first case was in March, 1887. After this, and as a result of his communications to the Clinical Society and to the British Medical Association in August, 1889, the operation was performed much more frequently.

Thanks to the kindness of the many surgeons to whom I have written, and to whom I owe a deep debt of gratitude for the trouble they have taken and for the valuable information they have freely given me, I have been able to collect particulars of ninety-four cases. Of these, nineteen have died, upwards of 20 per cent.; but it is worth noting that while twelve deaths occurred in the first forty-seven (in point of time), there were only seven in the second. Moreover, the immediate causes are of some consequence. One of the fatal cases, it is believed, was due to corrosive sublimate poisoning. In a second the operation was of an exceptionally extensive character, involving resection of the pubic symphysis. A third, who was eighty years of age, died suddenly on the fourth day from what is called "acute irritative urinary fever," the temperature rising rapidly to 106° F. without any apparent reason. Three died from pneumonia or purulent bronchitis, one from hæmorrhage, and the rest from exhaustion, or pyelonephritis. With wider experience it is probable the mortality will be much further reduced. The percentage of failure is more difficult to estimate, as many cases, in which complete control over the bladder was never regained, certainly do not deserve to be included in the list. In one, for example, complete recovery followed the perineal operation performed a month or two later, the division of the obstructing bar had not been carried out sufficiently. In another—a man eighty-seven years of age—no attempt was made to close the supra-pubic wound; but at the present time, four years after the operation, he is—so I am informed by Mr. Buckston Browne—going about still, thoroughly enjoying his life. In a third there was already a fistula, consequent on the previous removal of a vesical tumour, and in several others there were reasons for which allowance should be made; but this is better considered with the conditions that render operation advisable.

As regards the technique of the operation there is but little variety. Trendelenburg is in favour of a transverse incision through the soft parts, which may be advisable in the case of a large pendulous abdomen, following the fold that hangs over the pubes, but does not really give more room, and certainly predisposes to hernia. Langenbuch's subpubic incision is much too contracted, and interferes with the prostatic plexus. Helferich, as already mentioned, resected the pubic symphysis, and Watson has written to me saying that in a suitable case he would not hesitate to adopt the same method. According to McGill, enucleation of the growth after the mucous membrane over it has been divided is the most satisfactory method. Others have employed the cautery or an écraseur; and Keyes makes use of what he terms a "rongeur," to cut a channel through the obstruction. Bleeding is rarely serious, although in one case it proved fatal, and in another contributed largely to the result. The amount removed must depend in each case upon what exploration reveals. In two instances McGill removed only a fragment the size of a pea. On the other hand, Buckston Browne in the case already mentioned excised four ounces by weight. Certainly if a satisfactory result is to be ensured the whole vesical portion must be enucleated, a low level channel cut through, and unless the tissues around the neck of the bladder are perfectly soft and flexible (which is practically impossible in such cases), a smooth and straight funnel-shaped route made down the urethra. Belfield lays especial stress upon the thorough exploration of the urethra with the finger. In one of his cases, after removing a tumour the size of a walnut from the left lateral lobe through a supra-pubic incision, he found that there was still some obstruction in the prostatic urethra, preventing the entrance of a catheter. Perineal urethrotomy was performed, an incision made along the floor, and a rounded mass shelled out into the bladder. There is no doubt, too, that one of the earlier cases (Meinhardt Schmidt's) failed from this not having been done, for the bladder recovered completely after perineal prostatotomy, and the patient was perfectly well two years and a half afterwards.

Trendelenburg, Helferich, and others have made use of the cautery, instead of a separate perineal opening, sinking it deeply into the tissue of the prostate in the middle line behind; but, as Belfield points out, the addition of the boutonnière increases but slightly the injury to the tissues and the duration of anæsthesia, while it enables the operator to feel much more accurately what he is doing. It may also be pointed out that it is of great assistance afterwards in draining the bladder. It is true that after supra-pubic lithotomy all the urine will come out of its own accord through a tube inserted in the wound; but this only holds good so long as the operation is confined to the bladder. The prostatic portion of the urethra cannot drain itself in this way, and when the operation has extended into it, unless a perineal opening is made as well, it becomes a conical receptacle at the lowest part of the wound filled more or less continuously with decomposing blood and urine. The lateral lobes are quite as important as the median, and require to be dealt with as thoroughly. McGill recommended removing the salient portions with scissors, and then enucleating the rest until a funnel-shaped passage was established. So long as the bladder is of fair capacity, this is not so difficult as it appears to be—the greater the size and the more irregular the enlargement the easier enucleation becomes. Hard fibroid growths rarely project in this way; but unless Helferich's resection of the pubic symphysis (which very seriously increases the gravity of the operation) is performed as well, it is almost impossible if the bladder is small and its walls rigid.

Such are the operations proposed for the radical cure of enlargement of the prostate. Provided suitable methods are selected, there is no doubt with regard to the possibility of removing the obstruction. The first question is whether it will return and render the operation useless? the next, whether the bladder will regain its power of expelling its contents wholly and effectually? and then what is the risk to life? Mercier's operations there is no doubt are failures. If a larger amount is removed, is the prospect much better? Definite recurrence has been noted in one instance (Benno Schmidt's first case), and that within nine months. It is true it has been suggested that the

[1] Delivered at the Royal College of Surgeons of England on June 3rd, 1892.

growth in this case was of a malignant character, but as the symptoms had already lasted seven years at the least, this is hardly probable. In another (Guyon's case, reported by Vignard), a few days after the operation the introduction of a catheter became as difficult as it was before; but this must have been caused by imperfect removal, for, though there might possibly have been an impediment to the passage of the urine, the growth could not in the time have spread sufficiently to prevent the entrance of an instrument. On the other hand, I have notes of four cases in which, on the bladder being opened and examined at a later period (three months, eighteen months, one year, and two years and a half respectively), the cicatrix was perfectly smooth. The clinical evidence bears this out. A very large proportion of the patients who were operated upon, and regained power over their bladders, retained it as long as they were under observation, and in many it continued to improve. It is noteworthy that in some instances the prostate has undergone an actual diminution in size after operation. Harrison has recorded a remarkable example of this in his Lectures on the Surgical Disorders of the Urinary Organs; Packard of Philadelphia mentions another. I have met with a third in which the shrinkage was proved post mortem, and there are several others on record. The change is much greater than can be accounted for by the subsidence of congestion and the contraction and absorption of thrombi. I incline to the opinion myself that it is the result of the fibroid consolidation which sets in sooner or later in most of these cases, and not, as Harrison suggests, of simple atrophy. But whether this is the case or not, there can be no doubt about its occasional occurrence, and it is certainly encouraging that, although many of the cases operated upon are now four years old, definite recurrence has only been noted in one. The question of the recovery of the bladder depends partly upon the condition of the patient as regards general nutrition, partly upon the extent to which the muscular coat has been ruined by over-distension, cystitis, and the repeated use of catheters. Nineteen cases in all failed; but in four of these either the whole obstruction was not removed, or no attempt was made to close the supra-pubic opening; in two others there was already a fistula owing to the previous removal of a vesical tumour, and another was a very feeble old man who became insane shortly after. These, at least, must be deducted, and in several others there were mitigating circumstances which ought to receive a certain amount of consideration. It cannot, however, be too plainly stated that the real reason why the bladder in some never did regain power was that the operation was performed too late, when the muscular coat was already hopelessly involved. Sir Henry Thompson has written that habitual catheterism for retention in enlarged prostate for two years will destroy permanently the power of the bladder to empty itself; and although McGill has shown that this is by no means so invariable or so positive, and that cases have recovered even after so long as seven years, it is certainly one of the strongest arguments in favour of early operation that the chief palliative measure that replaces it may within two years—will, according to Sir Henry Thompson—so ruin the bladder that it can never recover.

The final question is whether the operation does not involve too great a risk to life, and how far it will compare in this and in the degree of comfort it confers with palliative measures, such as supra-pubic and perineal drainage. For it has been said that nearly the whole of the benefit derived from it is due to the temporary relief from cystitis, or to the extraction of calculi, and not in more than the remotest degree to the removal of the obstructing mass. In answering this the perineal operation must be considered separately from the supra-pubic. It is not a matter of option which of the two should be performed; one may be required, or the other, or both; and fortunately in the majority of instances it is fairly easy to tell beforehand which should be selected. Even, however, if owing to some misleading feature there does happen to be a mistake in the diagnosis, and the perineal operation is performed in a case better suited to the other, exploration with the finger can do no harm, and the presence of the incision, supposing it is not wanted for drainage, adds little or nothing to the gravity of the operation. Of the thirty-eight cases of perineal operation undertaken with this object, and not as an afterthought during lithotomy, three died. One of these was eighty years of age already, and in another the method tried was unsuitable. Simple division is not, I grant, of much value, unless followed up by prolonged drainage; but undoubtedly in suitable cases perineal prostatectomy, without causing an appreciably greater risk, confers upon the patient a degree of relief with which that following mere cystotomy or drainage offers no comparison. The patient in a large proportion of cases recovers complete control over his bladder; and even in the failures, even in those instances in which the sole benefit gained is the easier introduction of a catheter, he is no worse off than if the formation of a permanent fistulous opening and nothing more had been the object in view. The supra-pubic operation stands on different grounds. Taking all the cases together, the mortality is approximately 20 per cent. (if the last half only, it is still 15 per cent.); and although it is highly probable that this will fall lower, especially in the hands of those who are practised in the performance of the operation, it will always remain higher than that of the other. On the other hand, the condition of these patients beforehand must be remembered, that they were practically *in extremis*, suffering from the worst complications of intense cystitis; and it may well be asked if the operation is to be judged by the results of the first hundred cases, taken indiscriminately, before any definite opinion has been formed as to when and under what circumstances it is advisable, what would have been the duration of their lives, and in what condition would they have lived had the operation not been performed. The real issue lies between supra-pubic prostatectomy and palliative measures, such as simple cystotomy with the continuous wearing of a cannula; for those cases in which patients have been able to dispense with this are too rare to deserve consideration. That when the more serious operation does succeed the condition of the patient is infinitely better there can be no question. Wearing a drainage-tube permanently in either situation may be tolerated, but, in spite of the enthusiastic comments of those who were suffering tortures before it was introduced, it is scarcely preferable to micturition by the natural route; and it must always be remembered that it does not always convey even this moderate degree of comfort—a certain number of patients, those especially who suffer from the irritation caused by vesical outgrowths, cannot tolerate it. Each has, I believe, distinctly its own field. Enlargement of the prostate by itself requires neither, and fortunately the majority of patients suffering from this complaint pass through life without its ever becoming necessary to raise the question. In a certain proportion, however, complications set in sooner or later; and to many patients there comes at length a time when their constitutions are still sound, but there are clear indications that the local conditions are surely and rapidly growing worse. The catheter has to be passed more and more often; occasionally there is a little difficulty, and what is still more important, it no longer gives relief. The desire to pass urine is as great after the instrument is withdrawn as it was before; cystitis breaks out every now and then; attacks of congestion causing hæmaturia and retention occur with greater frequency; the urine is becoming offensive; the residuum is growing larger; and the night's rest is seriously broken. For these and such as these prostatectomy by one route or the other, according to the special conditions present, certainly affords a far better prospect than either cystotomy or drainage, and without sensibly greater risk. Permanent cure is possible, and even the failures are as successful as the successes claimed for the other methods.

On the other hand, if this chance is lost; if, as only too often happens, the patient has allowed himself to drift on, using a catheter more and more frequently, without realising what the end must be, until his kidneys are diseased or cystitis has destroyed the muscular power of the bladder, and made it small, hard, and rigid, the conditions are entirely different. When the capacity of the bladder is much reduced and it cannot be distended; when it has lost its power, whether this arises from prolonged retention, repeated inflammation, or the persistent use of catheters; and when under careful treatment and watching it shows no sign of recovery, it is useless attempting to remove the obstacle; cure is impossible, and the risk, if there is the least degree of nephritis, much too great. Palliative measures only can be employed; as much benefit will be derived from drainage as from the most complete enucleation; and no surgeon would undertake a grave operation when one less dangerous to life would answer equally well.

CLINICAL REMARKS ON FRACTURE OF THE UPPER END OF THE ULNA ASSOCIATED WITH DISLOCATION OF THE HEAD OF THE RADIUS.

ADDRESSED TO THE STUDENTS OF THE CALCUTTA MEDICAL COLLEGE.

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A HEALTHY strong Mahomedan sailor, aged fifty-eight, was admitted to hospital with a compound fracture of the upper fifth of the ulna, which had been sustained in the following manner. He was working on a dredger, and a chain accidentally slipped off a wheel and struck his left forearm violently near the elbow-joint, on its posterior aspect. Compound fracture of the ulna was detected about three inches below the head of the olecranon process. The wound was dressed antiseptically, and the arm put on a rectangular splint. I saw the man next morning, about twenty-four hours after the accident had occurred. Guided by previous experience I considered it necessary to examine the part, and I found that, in addition to the compound fracture of the ulna, the man had sustained a forward dislocation of the radius, the head of which was found lying beneath the skin of the front of the elbow-joint, between the two masses of muscle bounding the triangular hollow in that region, or, to speak more accurately, just within the belly of the supinator longus. The patient was at once put deeply under chloroform. An unsuccessful attempt was made to reduce the dislocation by extension and manipulation. Extreme flexion was then tried, and the head of the bone slipped into its natural position, and remained there on straightening the joint. The fracture was at the same time reduced. Antiseptic dressings were applied, and the limb placed on a rectangular splint. The dressings were changed after a week, and then after a fortnight. The wound has almost healed, the broken ulna is undergoing satisfactory union, and the head of the radius remains on the capitellum. The movements of the elbow joint are free, and the man will regain perfect use of his left upper extremity.

This case illustrates a combination of fracture and dislocation at the elbow of which I have seen numerous examples, both recent and old, and which present several points of considerable practical interest and importance. My attention was first drawn to this injury in 1879 by two cases which were admitted into the hospital about the same time. A child of six years had fallen from the roof of a house and broken the left ulna at its upper fourth and dislocated the head of the radius forwards. The dislocation was detected and reduced, and the fracture set. The final result was perfect. The other case was that of a young man aged twenty-eight, who had some four months previously to admission been kicked by a horse on the left forearm. On examination an old fracture of the ulna at the upper fourth was detected which had united angularly, and the head of the radius was found in the same position as we found it in the case under consideration—namely, lying in front of the external condyle of the humerus and inside of the supinator longus and flexor carpi radialis longior muscles. The limb had lost in bulk and power, and its movements were considerably impaired. Since then I have seen several old cases of this injury in which the nature of it had not been discovered nor the proper treatment applied. A certain amount of deformity, of permanent lameness, and disability existed in all these cases. By rubbing and passive movements some restoration of function and power can be obtained, but perfect recovery is quite impossible in such cases. In the year 1883 I treated a recent case which I made the subject of a clinical lecture at the time, the facts of which I shall briefly recapitulate. A middle-aged man fell off a stair, and his arm came into violent contact with a brick. A fracture of the ulna was detected and put up. I examined the limb three weeks after the accident, and found that the ulna had been broken at its upper fourth and the head of the radius dislocated forwards. The characteristic deformities were well marked and the movements of the elbow-joint much impaired. I made a careful and prolonged endeavour to reduce the dislocation, but without avail. Passive movements were subsequently resorted to, and the joint and limb were restored to a fair degree of efficiency; but considerable deformity and limitation of movements remained. About the time that I first noticed the injury I performed some experiments on the dead body in order to study its causation and anatomy. I placed the prone forearm on a table with a block under the arm just above the elbow, and brought the edge of a heavy block of wood down with force on the back of the limb so placed and supported. In two instances the block came down on the middle of the forearm and broke both bones; in two others it came down on the upper third of the forearm, fracturing the ulna and neither breaking nor dislocating the radius; and in two more the double injury which I have described was produced—namely, oblique fracture of the upper fourth of the ulna about three inches from the upper end, and dislocation forwards of the head of the radius. In one of these last instances I dissected the parts. I found that the head of the radius had slipped forwards through the anterior ligament of the elbow-joint, the orbicular ligament having slid on to its neck, and lay in the cellular interval between the brachialis anticus and supinator longus and radial extensor muscles. The upper fragment of the broken ulna had been displaced forwards and outwards, and had torn the flexor profundus muscle. The statistics of fractures of the bones of the forearm collected by Hamilton and Agnew show that the radius is seldom broken in its upper third, that the ulna is pretty equally liable to be fractured throughout its whole length, and that when both bones are broken the fracture is much more frequently situated at the middle and lower thirds than at the upper. Hamilton states that eleven out of thirty-three cases of fracture of the ulna were complicated with dislocation forwards or forwards and outwards of the head of the radius, and he mentions that he had seen seven instances in which the radius had not been reduced in an injury of this kind. From these cases, experiments, and statistics the following conclusions may fairly be drawn: 1. That the injury in question is by no means infrequent. 2. That it is generally due to direct violence, the point of application and degree of violence determining whether one or both of the double injuries result. 3. That the deformity is characteristic, the upper fragment of the ulna being pushed or pulled forwards and outwards, causing angularity of the shaft and some bulging at its upper end, and the head of the radius lying in front of the external condyle of the humerus and giving rise to some abnormal fulness there. 4. That the characteristic displacement of the upper fragment of the ulna is due to the effect of the violence and to traction exercised by the oblique and orbicular ligaments and the supinator brevis muscle. 5. That when the displacement of the radius is not detected and remedied, the ulna undergoes union in its distorted state, and the limb loses considerably in efficiency as regards both movement and power. From these considerations I would strongly insist upon the following practical precepts:—1. Whenever we find a fracture of the upper end of the ulna examination should be very carefully made for a dislocation of the head of the radius. 2. Should such a dislocation be found, it must be reduced at once, and endeavours made at the same time to rectify the displacement of the upper ulnar fragment. 3. In view of the clinical fact that it is found sometimes very difficult to retain the head of the radius in position after reduction, examination of the part must be made from time to time in order to be sure that the head of the bone is in its proper place.

Calcutta.

CONVALESCENT HOMES FOR MOTHERS.—The Rev. Canon Palmer presided at a public meeting held at Newington on the 9th inst. in aid of the Mothers' Seaside Convalescent Home at Herne Bay. The report submitted stated that during the twelve months which the home had been opened there were 169 visitors, of whom 39 were infants. The house would accommodate 35 inmates, but it was proposed to increase the accommodation as soon as the necessary funds were forthcoming. A special feature of the institution is the permission for mothers to bring infants under two years of age with them, a nursery being provided for that purpose. A resolution was adopted in favour of establishing a Samaritan Fund to enable poor convalescents to obtain the benefits of the home.

INTRAVENOUS INJECTION OF "NORMAL" SALT SOLUTION FOR THE GRAVE HÆMORRHAGES OF MIDWIFERY.

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(*Concluded from page 1291.*)

CASE 4. *Accidental hæmorrhage; transfusion; recovery.*—Mrs. ——, aged twenty-eight, had had five previous pregnancies which terminated at the twelfth week, sixth week, term, sixth month, and sixth month respectively. On the last occasion, in September, 1887, she had severe post-partum hæmorrhage. The obstetric assistant, Mr. E. A. Barton, was called to see her at 10 P.M. on Feb. 24th, 1889, and obtained the following history and notes. On the evening of the 23rd (when six months and a half pregnant) the patient had had "words" with her husband. She slept well that night; but at 3 P.M. on the 24th, without any apparent cause, she was seized with sudden great pain in the abdomen, felt sick, and soon afterwards vomited; she noticed how "hard" she had got in the abdomen. Soon she was obliged to lie down on account of the pain, and she felt faint and "wanted to breathe more." The vomiting and retching continued till 10 P.M. At 10.30 she passed (for the first time) blood to the extent of an ounce. On the obstetric assistant's arrival the woman was in great pain, was retching, and pale even to the lips, and constantly sighing and yawning. The pulse was 90, very weak, but regular. The uterus reached to just below the ensiform cartilage, and was continuously tense and hard; the fœtus could not be felt, nor its heart-sounds heard. The os was high up and far back, of the size of a florin, and soft. No placenta could be felt. A mass, presumed to be the vertex, could just be felt floating in the waters. The membranes were punctured, and a gush of blood occurred, and was followed by a continuous flow. Forty drops of liquid extract of ergot were given, and the os was dilated easily with the fingers and hand sufficiently to apply forceps to the breech. By this time the patient was completely blanched, and breathing deeply and slowly. The forceps slipped, and the child was delivered without any difficulty by traction on the groin, and bringing down a leg. The uterus still felt as if there were another child in it. On expression an enormous clot was passed. The placenta was extracted by the hand. Three grains of ergotin were injected hypodermically, and an intra-uterine injection of iodine solution given. There was no post-partum hæmorrhage. At this time (12.30 midnight) the pulse varied from 120 to 130, was of a very bad character, extremely small, but regular, and all the signs of extreme anæmia were present, and the tendons of the wrist were twitching. At 1.30 she was pulseless at the wrist. She was in a state of apparent stupor, but when the pulse disappeared she roused, tossed her arms over her head, gasped and twitched the facial muscles. She then tried to move about in bed. This lasted half a minute, when the pulse returned, and she "curled up again stupid." From 1.30 to 2.30 the patient continued in the same grave state, several attacks of syncope occurred, and the pulse was often completely absent, and when present lasted only a few seconds, at a rate of 128 to 140 to the minute, and could only just be felt. As she showed no signs of rallying, in spite of brandy and elevation of the limbs, at 3 o'clock I transfused into the median cephalic vein, the patient not feeling the incision. At 3.10 the pulse was fuller. The patient woke up and wanted to know what was going on. She complained of cold. The colour returned to her cheeks. The pulse diminished in frequency and increased in force until, at 3.30, when twenty-five ounces had been injected, she had a good pulse of 102; at 3.50 the pulse was 114; at 4 5, 106. For the next six hours the rate of the pulse, noted every few minutes, was mostly from 100 to 110; it rose once to 130, at 4.25, under an act of vomiting, the only time after the operation. At 10 A.M. the pulse was 100, and the patient was asleep and warm. Since the operation the pulse, though varying a little in strength from time to time, never disappeared or gave rise to anxiety, and the general condition of the patient was markedly improved. She took small doses of beef-tea, milk, and brandy at frequent intervals. In the after progress there was nothing specially to note. On the fourth day the temperature reached the height of 103·2° (no ascertainable cause); on the fifth, 100·6°; after this it kept below 100°. On the eighth day the patient, though weak, was practically well, and was regaining her colour. On the twelfth day the patient got up, and at the end of a month she was in good health, and had almost recovered her usual good colour. The after-history of this case has a melancholy interest. On Feb. 2nd, 1891, the patient, when pregnant at term, was seized with the same train of symptoms of accidental, followed by post-partum, hæmorrhage, and before my assistant could arrive or I could be summoned the patient died.

CASE 5. *Contracted pelvis; old scar in cervix; induction of premature labour; version; laceration of lower segment into broad ligament; transfusion; death.*—Mrs. —— had had three children; the first and third had been delivered by cephalotripsy; the second was born alive after version at the seventh month, but breathed only a few times. On Jan. 30th, 1889, labour was induced by the introduction of a bougie, the pregnancy having advanced to the seventh month. The cervix had a tough scar extending into the lower segment on the right side; on the fourth day the cervix was still very rigid; on the fifth day a Barnes' bag was introduced and left in for two hours and three-quarters; pains feeble. On the sixth day chloroform was administered; three fingers could be passed into the cervix; it was dilated by the fingers till it admitted the half hand and bipolar version performed; but as the cervix was still rigid the case was left to nature for two hours and a half. The patient felt a little faint and thirsty. As the cervix appeared now sufficiently dilated to admit the passage of the small head, slight traction was made, and the body and head easily delivered. The child was stillborn. A little bleeding occurred after the child was born; after the placenta was expressed there was a slight gush of blood and some trickling; under ergotin and hot injections this soon ceased. There was found to be a laceration of the cervix on the left side, but this was not thought to be extensive. The condition of the patient was very grave, although she had lost but a moderate amount of blood. In spite of injections of ether and brandy by the mouth the pulse rose to 140 and was very weak, and the patient was thirsty and faint. The limbs were raised, but the pulse rose to 165, and was extremely small and weak. At 3.15 P.M. (an hour and a half after delivery) the patient was evidently sinking. The uterus kept fairly hard, and there was but little loss of blood. Nearly two pints of saline fluid were injected in about twenty minutes. The general condition of the patient was not improved by the operation. In ten minutes the pulse had fallen to 140, and was rather stronger; but fifteen minutes later it was imperceptible, this in spite of hot bottles, ether injections, raising of the legs, and brandy. She became restless and talked a good deal, saying how queer she felt, and begged to be allowed to sit up and to have her legs put down. At 4.15 P.M. she commenced tossing about, the legs moved convulsively once or twice, and after a few shuffling movements of the body she became unconscious, with half-closed eyes, and died at 4.40 P.M. During the transfusion it was found that the patient had lost nearly half a pint of blood from the vagina. At the post-mortem examination a laceration four inches and a half long was found in the left side of the cervix, and extending up into the lower segment. It had extended into the broad ligament without lacerating the peritoneum, but had severed a large branch of the uterine vein. There was a scar three-quarters of an inch wide, evidently due to a similar laceration in the right side at some previous labour. There were several ounces of blood in the broad ligament.

CASE 6. *Complete placenta prævia; first hæmorrhage (very severe) at term; external version; embryotomy; transfusion; death.*—Mrs. ——, aged thirty-five, had had six children and one miscarriage; her last pregnancy was four years ago. On Oct. 3rd, 1889, being pregnant at term, while attempting to pass a motion into a bucket a terrific flooding suddenly occurred. The patient thought the waters had burst, and sat over the edge of the bucket until she fainted and fell back on the bed. Her husband then

found "a gallon" of blood in the bucket; the blood was still "squirting from her in all directions," and the petticoat was so heavy from the blood that he thought it must contain the child. When I saw the patient at 10.30 A.M. I found her in an exceedingly dangerous state, colourless in the face, with ashen lips, thirsty, somnolent, with dim vision; pulse 80, extremely small and weak; extremities cold. On abdominal examination the placenta was felt on the left side, and extending to the front and back, the anterior edge passing from the middle of the uterus on the left side to the outer fourth of Poupart's ligament on the right; child in first vertex position. The os admitted two fingers, and was completely occupied by placenta. There were some clots in the vagina. I performed external podalic version, separated the placenta for an inch and a half on the right side, ruptured the membranes, and brought the knee through the cervix with difficulty and with a loss of some blood. Patient felt faint; pulse 100, extremely weak. At 11.15 the pulse began to disappear at times, and the patient felt worse, and became more and more faint; no sickness; extreme pallor, extremities cold, in spite of hot blankets. Her condition appearing desperate, it was decided to perform embryotomy, and to transfuse the patient. There was no post-partum hæmorrhage, except a little trickling from a laceration of the cervix, which was stopped by plugging. The heart was beating 112 to the minute, the pulse either absent or only just perceptible. I injected thirty-five ounces of saline fluid into the right median basilic vein. After ten ounces had been injected the pulse had a fair quality and regular rhythm, and it gradually improved, until, at the end of the transfusion, it was 90 to the minute, the beats being full and constant, and, for the first time, she had a tinge of colour in her lips. At 12.15 I really thought she might recover. A little oozing occurred from the vagina to the extent of two or three ounces. This was stopped by a new plug. The pulse rose to 112, and got gradually weaker. The patient became restless, wanted to sit up, and suffered from air-hunger. I decided to transfuse her again, but before the apparatus could be prepared a tonic contraction of the muscles of the face occurred, and with a few slow, gasping breaths the patient died at 1 P.M. The pupils were moderately contracted till just before death; there was no vomiting throughout; the pulse never rose higher than 112. At the post-mortem examination the placental site was found in the situation diagnosed by abdominal examination, and was covered with thick clots of blood. The anterior lip of the cervix was lacerated up to its insertion into the vagina.

CASE 7. *Adherent placenta; post-partum hæmorrhage; transfusion; relapse; second transfusion; recovery.*—Mrs. ——, aged forty-seven, has had fifteen children, the last in 1885, at which time "the afterbirth grew to her side," and she had a severe flooding, fainted, and "was unconscious on and off for three weeks." On Feb. 13th, 1891, she was delivered before the attendant's arrival (at 1.10 A.M.), who found her lying in a pool of blood, the bedding soaked, a pool of blood on the floor, and about a quart of blood in a vessel by the bedside. It being impossible to express the placenta, the obstetric assistant, Mr. S. H. Bates, was summoned, and, in my unavoidable absence from town, performed the operation and conducted the case throughout. The patient was found to be faint, and complained that she could not see; the skin and mucous membranes were extremely pale; there was delirium, throwing of the arms, and frequent sighing. Pulse 150–160, very feeble. All bleeding had ceased. The patient's head was lowered; ether was injected into the arm, and the placenta, which was firmly attached to the uterus at the upper part, was with difficulty detached by the fingers except at one or two places, where it was impossible to remove the adherent organ, and further manipulations were not carried out owing to the alarming state of the patient, the pulse being 160, and with difficulty felt, in spite of the administration of brandy and ether. At 2 A.M. a pint and a half of hot saline solution was injected into the rectum and the elevated limbs tightly bandaged; but this produced no improvement in the pulse, and the general condition of the patient became worse. At 3 A.M. the pulse could not be counted and was flickering. Thirty ounces of saline fluid were injected into the median basilic vein. The pulse gradually improved. At 3.30 it was regular, moderately full, 140 per minute. The improvement was maintained until 4 o'clock, when the pulse again became very feeble and irregular, and fifteen ounces of saline fluid were again transfused, and at 4.20 the general condition and the pulse had again improved. From 5 A.M. till 9 A.M. the patient vomited at intervals, and this seemed to depress her, and the pulse was at times imperceptible, but the general condition was better. Not till the afternoon was she in a satisfactory condition. At 3 P.M. the pulse was 120 and the patient warm. At 5 P.M. and at 7 P.M. the pulse was 112. During the puerperium fourteen intra-uterine injections of iodine water were administered. The temperature reached its highest point (101·2°) on the sixth day, and did not return to normal till the 17th. For the first nine days the pulse varied between 124 and 100. The patient remained anæmic for a long while. She was seen by me on Jan. 29th, 1892, and was in good health, had an excellent colour, and had menstruated regularly.

CASE 8. *Severe accidental hæmorrhage; patient moribund one hour and a half after delivery; transfusion of forty ounces of saline fluid; death.*—MRS. ——, primipara, aged twenty-six, at full term, had a severe hæmorrhage in the early morning of Sept. 11th, 1891. She lost "half a gallon" of blood, and felt faint; the bleeding soon ceased and did not recur; she had no abdominal pain. The blood was cleared away by the patient's mother, and the fact of the hæmorrhage having taken place was carefully concealed from the nurse and from the student in attendance until after the death of the patient. During the labour, which lasted eight hours, the woman was pale, but made no special complaint and was fairly cheerful; unfortunately, the condition of the pulse was not noted. There was no hæmorrhage. The child was stillborn, the perineum only notched. A few minutes afterwards the placenta and a clot as big as a large fist were expelled. There was no other hæmorrhage. Half an hour later the patient had all the symptoms of severe loss of blood, and gradually became pulseless, restless, and unconscious. An hour and a half after delivery I saw her. She was then *in articulo mortis*, completely blanched, unconscious, motionless, pulseless, and no heart sounds could be heard. The only sign of life was a faint flickering pulsation in the neck and an occasional gasping respiration. Nearly forty ounces of saline fluid were transfused without any benefit, the patient having died before the operation was completed. The post-mortem examination showed the uterus to be uninjured, and failed to explain the death. Afterwards the mother mentioned the fact of the accidental hæmorrhage, which she had carefully concealed at her daughter's request from motives of false shame.

Remarks.—Of the eight cases, it will be seen that four recovered and four died. Of those that died, two (cases of accidental hæmorrhage) are of no value in estimating the effects of the treatment, for in one case the patient was in a hopeless condition, and in the other was practically dead; both died when a few ounces had been injected. Of the other two cases, one had an extensive laceration of the lower segment of the uterus and a hæmatoma of the broad ligament, and died rather from shock than loss of blood; the other (a case of central placenta prævia) had also a lacerated cervix, and I think might possibly have recovered if a second injection had been made. Of the cases that recovered, two were examples of adherent placenta, with post-partum hæmorrhage, and two were cases of accidental hæmorrhage; one of these women died in her next labour from a repetition of the accident. In two patients the operation was performed a second time, making six successful operations in all. The eight cases described above bear but a small proportion to the number of cases treated for hæmorrhage. During the last five years I have endeavoured to see all cases of acute ante-partum and all grave cases of post-partum hæmorrhage occurring in the hospital maternity. Of the former alone (excluding miscarriages) I have seen about 100 cases, including forty cases of placenta prævia. Many patients I have seen almost pulseless and in a serious general condition after the loss of large and small quantities of blood; twice I have seen patients recover without transfusion after hæmorrhage so severe as to cause convulsions; all except the above-mentioned have recovered with the ordinary remedies, and in no case has intra-venous injection been resorted to until the ordinary methods of treatment have failed. Before performing the operation the bleeding should be definitely controlled. The apparatus I have employed for the purpose of injecting the fluid is shown in the engraving. It consists of a glass bottle holding two pints, with an india-rubber stopper, through which pass a thermometer, a thistle-

headed tube (for the purpose of replenishing and for the admission of air) filled with antiseptic wool, and a delivery-tube, to which are attached about four feet of india-rubber tubing and a cannula made of vulcanite or glass.[1] The apparatus, having been washed with a 5 per cent. solution of carbolic acid and with boiled water, is filled with hot boiled distilled water containing one drachm of sodic chloride to the pint. Instead of using the solid salt, time and trouble may be saved by employing a preparation of Mr. Gerrard's, the dispenser to the hospital, which consists of sterilised and stoppered glass tubes containing two drachms of pure salt in solution. When the bottle is filled, the solution is maintained at a temperature of 105° by placing the bottle in a vessel, into which hot or cold water is poured from time to time. The solution is made to run by blowing with the mouth through the wool-stoppered tube, and raising the bottle about two feet above the patient's arm. A longitudinal slit is then made in the skin over the median cephalic or basilic vein; if assistance is not at hand, it is better to make a transverse slit through a fold of skin, as the elasticity of the skin then makes the wound gape; the vein is isolated, and three fine silk ligatures are passed under it. The lower of these is tied, the vein picked up with forceps and opened by a scalpel, and, the solution having been set running, the cannula is inserted and tied in with the middle ligature. The solution should be allowed to flow slowly, and the bottle should not be raised too high. Thirty or forty ounces will in nearly all cases be sufficient to inject, and the operation should take from twenty minutes to half an hour. In case of relapse the operation may be repeated on the other side. After the operation the cannula is removed, the vein tied with the upper ligature, and the wound closed and a back splint applied. If necessary stimulants may now be administered with greater benefit than before the operation. In conclusion, I would express my belief that the operation properly performed is neither attended by danger nor followed by evil consequences; that it will afford remarkable relief in cases of severe hæmorrhage, which are not complicated by "shock," after all the ordidary methods of treatment have failed; and that in the gravest cases of ante-partum hæmorrhage it would be well to inject the solution before delivery is effected.

Mansfield-street, W.

NOTE ON THE

FEVERS PREVALENT ON THE SHORES OF THE MEDITERRANEAN AND RED SEAS.

BY G. HUTCHINSON MILNES, M.D. CANTAB.,
FORMERLY SURGEON IN HER MAJESTY'S FLEET.

THE LANCET of May 28th, 1892, contains a review of a work entitled "Studio Etiologico e Clinico delle Malattie Febbrili più Comuni a Massaua," by Dr. Pasquale. This book describes the research officially entrusted to its author on account of the difficulties experienced by the Italian doctors in dealing with fever at Massaua. Dr. Pasquale's conclusions are summarised in THE LANCET as follows:—"1. Massowah is not a seat of palustral infection, though malaria may be evoked in its climate when already existing as a cachexia due to previous attacks. 2. There is no fever infection *sui generis*, such as the 'climatic remittent' which some classifiers have called it. 3. There are febrile maladies which might be confounded with common continued fevers (such as those arising from typhoidal infection), principally of the so-called 'abortive' and minor types." I am not in a position to refer to Dr. Pasquale's work, and am therefore unable to pass an opinion upon the thorough and exhaustive research which he appears to have conducted into the nature of the fevers occurring at Massowah; but the conclusions as stated in THE LANCET seem to me unsatisfactory and lacking in distinctness, especially as no indication is given of the nature of the fevers mentioned in conclusion No. 3. During a turn of service as a naval surgeon in the Mediterranean and Red Sea in 1887, 1888, and 1889, I paid considerable attention to the study of the clinical characters of the fevers prevalent on the shores of those seas, and arrived at certain conclusions, which, though by no means original, represent, I think, fairly and distinctly the views of men who have had most experience of these diseases. The important point in my conclusions is that the same kinds of fever occur in all parts of the basins of these two seas; a case of fever at Sawákin or Massowah will not present features essentially different from those of a case treated at Malta or Naples. These fevers, excluding the exanthemata, typhus, and influenza, comprise typhoid, malarial fevers, as well as a febrile disease which is called by some local name in nearly every district of the area under consideration, and is regarded by the inhabitants as peculiar to each locality, but which is, I feel convinced, actually the same throughout the whole region. This is the Malta fever of Malta, the Rock fever of Gibraltar, the Cretan fever of Crete, and the local fever of the Red Sea ports, including Massowah. It has been thought by many to be malarial, by some to be closely allied to typhoid fever, or, indeed, typhoid fever itself in a masked form, and by others to be a compound of typhoid fever and malaria which they have called "typho-malaria." It is evidently this disease that has puzzled the doctors at Massowah, and has been made the subject of his research by Dr. Pasquale. In the consideration of this fever it is most important to remember that real typhoid fever is a common disease throughout this region, and that malaria occurs wherever the usual conditions of soil and climate give it an opportunity. Hence, it is necessary to judge every case upon its own merits, and to distinguish carefully the diagnostic features of each disease. It will then be apparent that in a series of cases some show the characters of typhoid fever, and some perhaps those of malaria; but a large proportion present features agreeing with neither one nor the other. Cases of the latter class vary widely in their duration, and to some extent in their symptoms, but the varieties overlap each other at so many points that lines of demarcation can hardly be drawn between them. An attack may begin with flushed face, full bounding pulse, dry burning skin, and other "sthenic" symptoms; or it may start with a slight sense of illness, debility, loss of appetite, clammy skin, quick feeble pulse—in fact, evident "asthenia,"—and in either case the duration may be long or short without reference to symptoms. Cases sthenic at the invasion do not always recover in a few days, and the asthenic cases do not always last for weeks or months; but if the duration be more than about a week every case will assume the asthenic type and retain it to the end. For my own part, I am inclined to call both the short and the long cases—both the sthenic and the asthenic—varieties of the same disease; for I know no distinction between them, except duration, and any attempt to distinguish between them by means of this feature alone must end in the drawing of an arbitrary line at a certain date in the course of an attack. If the date be passed, we have one disease; if recovery occur earlier, we have another. Such an artificial method would be foolish and impracticable.

A very short review of the principal symptoms will serve to show the eminently negative characters of this fever. The invasion is always marked by loss of appetite, often by headache or backache, but seldom by rigor or vomiting. The rise of temperature, sudden or gradual, reaches its highest point early generally in the first three days. There may be some slight pulmonary or pleuritic congestion; slight jaundice occurs in rare cases; rheumatism is not an uncommon complication at a late stage; but, except the sign noted in the next sentence, the disease has no features of its own. The tongue is covered with a dead-white moist fur, which persists throughout the attack, and whose disappearance I regard as the sign of recovery. The bowels are nearly always constipated, and there are no abdominal symptoms like those of typhoid fever. Enlargement of the spleen can very rarely be detected during life. In

[1] The apparatus is supplied by Messrs. Maw, Son, and Thompson at the price of 6s. 6d.

forty cases of which I kept careful notes, it was sought for constantly and never found. I never discovered it in many other cases of which no notes were kept, although I made a habit of examining the spleen in every case. Some observers have, however, found it enlarged at post-mortem examinations. If recovery do not occur within a week or ten days the main features of the disease are progressive febrile debility and emaciation, accompanied by irregular temperature without rigors, a condition which may continue for weeks and months, for which return to England seems the only cure, and which may recur on slight provocation even after the return home. I saw cases of this disease in most parts of the Mediterranean, at Malta and Naples, in Sicily and Crete, as well as in the Red Sea ports of Sawâkin, and Massowah. During a stay of about a week at Massowah several cases occurred on board H.M.S. *Starling;* they did not differ in any respect from cases seen at other ports, and in the Italian military hospital at Massowah. I saw typhoid fever in all these places and ague in some, and I have no hesitation in saying that this disease is neither ague nor typhoid fever, nor nearly related to either. It is not typhoid fever, because it neither presents the characteristic spots, abdominal symptoms, and lesions of that disease, nor does it run a definite course like typhoid. I am aware that in certain fatal cases post-mortem examination has revealed ulceration of the ileum, till then unsuspected; but I am also aware that surprises of the same kind have occurred in large metropolitan hospitals, where pneumonia, meningitis, and other diseases have been confused with typhoid fever. I have, however, never heard anyone argue from these mistakes that pneumonia and meningitis are nearly related to typhoid fever. The same may be said of typhoid fever spots, which are said by some to occur occasionally in these cases. I have seen spots in supposed cases of this malady, but the after-progress of the disease satisfied me that it was unquestionably typhoid fever. I have never heard of a fatal case in which real typhoid fever spots were seen and where no intestinal lesions were found on examination after death. Neither is this disease a kind of ague or malarial fever, because it occurs where malarial conditions do not prevail. There are no marshes at Malta, for instance, and real intermittent fevers do not occur there; but Malta is never free from the fever I am discussing. It abounds in towns and thickly inhabited places, such as are notoriously avoided by malarial diseases, while it does not prevail in open deserted districts which are known to be most favourable to ague. Rigors, exacerbations, and remissions take no part among its symptoms, such as they play in malaria. The prolonged attacks are familiarly called remittent, and in them the temperature is often irregular, but rigors are absent, splenic enlargement is absent, and in their other features these cases do not agree with the description of true malarial remittent fevers observed in any part of the world. Finally, all patients suffering from this fever may be dosed with quinine in every way and to any extent without the slightest beneficial result.

With the first of Dr. Pasquale's conclusions, as tabulated in THE LANCET, I am quite prepared to agree—namely, that "palustral infection" does not exist at Massowah; it is certainly absent from Sawâkin and many other places (e.g., Candia in Crete) where this fever abounds. The second and third conclusions are too indistinctly stated to admit of precise argument; if they mean that fevers occur at Massowah that are neither malarial nor typhoid, I agree again; but if they do mean this, why say "there is no fever infection *sui generis* such as the climatic remittent," &c.? My opinion, and I believe that of other observers, is that a fever exists whose prevalence is not confined to Massowah, which always presents the same features, which is endemic in certain places, which differs from the usually recognised forms of continued fever, and which may very well be supposed to result from an "infection *sui generis*," if by that term be understood some poison capable of producing this disease and no other.

It only remains to mention the simple method of treatment I used in all the cases that I treated. Patients were kept in their hammocks and on liquid diet till the tongue became clean. A dose of calomel was given at the start, and a saline mixture containing nitrate and bicarbonate of potash and soda, with or without sulphate of magnesia, according to the state of the bowels, was taken thrice daily throughout the attack. In twenty-three cases out of the forty above mentioned quinine was given in addition, generally in large doses (from twenty-five to forty grains), and in seventeen cases no quinine was given. Out of a ship's company averaging sixty-four more than fifty suffered in the course of two years from fever, some had several attacks. No case was invalided, and only one death occurred from typhoid fever (known and treated as such from the first) on the fifty-first day of the disease. Most of the fever patients returned to duty in a fortnight or three weeks. High temperature lasted on an average a day longer in the cases treated with quinine than in the others, a fact explicable, perhaps, on the grounds that quinine would sometimes be given if the attack seemed unusually severe, and withheld if it seemed slight. The results were particularly good when compared with those of other ships engaged on similar service at the same time, and this in spite of the fact that the men were reckless with regard to health considerations.

Derby.

Clinical Notes:

MEDICAL, SURGICAL, OBSTETRICAL, AND THERAPEUTICAL.

A CASE OF SPASMODIC TORTICOLLIS TREATED BY AVULSION OF THE CENTRAL END OF THE SPINAL ACCESSORY NERVE.

BY A. PEARCE GOULD, M.S. LOND., F.R.C.S. ENG.,
SENIOR ASSISTANT SURGEON TO THE MIDDLESEX HOSPITAL.

A LADY aged twenty-eight was brought to me in August, 1885, by the late Dr. Troutbeck, for very troublesome spasm of the left sterno-mastoid muscle. She first experienced trouble in the neck eight years before, soon after the death of a near relative; the jerking of the head had persisted ever since, gradually getting worse. The patient was a tall, thin girl, and delicate looking. There was no history of fits; she had had facial neuralgia, but not severe migraine. The spasm appeared to be entirely limited to the left sterno-mastoid muscle, and was so severe and constant as entirely to preclude the patient from mixing in society, and at night it was some time before she could get to sleep. Dr. Angel Money applied the constant current to the muscle on nine occasions, but with no benefit; indeed, the spasms appeared to be increased in severity. So on Sept. 10th, 1885, with Mr. Hudson's assistance, I exposed the spinal accessory nerve by means of an incision along the anterior border of the upper part of the sternoid-mastoid muscle, intending to stretch it and excise a considerable portion. In stretching it from the central end I felt the nerve gradually give way, and I pulled out a long, slender nerve from the jugular foramen and excised four inches and a half of it. No special symptoms were noticed from the tearing of the nerve roots. The wound healed without complication, and the patient returned home on Sept. 23rd. She called on me on Sept. 8th, 1886. She was then in much better general health, her head was held erect, and was quite steady. She could turn it freely to the left and about half the distance to the right, and she was gaining power in it. The left sterno-mastoid muscle had completely atrophied, and the cervical portion of the left trapezius muscle was markedly smaller than the right. The patient was able to mix again in society, and was very pleased with the result of the operation. A year later (October, 1887) Dr. Troutbeck saw her, and reported to me that she was "quite well, except for occasional fatigue felt in the neck; no jerks."

The satisfactory result of this operation was, in my opinion, chiefly due to the fact that the spasm was limited to the one muscle—the sterno-mastoid. I have on two subsequent occasions intentionally removed the central end of the spinal accessory nerve in the same way for spastic torticollis. The operation is quite a simple one, the delicate roots of the nerve rupture and a long tapering filament is drawn out from the spinal canal. These two cases were treated last year and it is too early to pronounce with certainty upon the result of the operation in them.

Queen Anne-street, W.

SPASMODIC TORTICOLLIS AND OTHER SPASMODIC MOVEMENTS OF THE HEAD.

BY NOBLE SMITH, F.R.C.S. EDIN., L.R.C.P. LOND.,
SURGEON TO ALL SAINTS CHILDREN'S HOSPITAL.

I AM able to report continued relief from spasm in both the patients whose cases I have previously recorded.

In the first instance the patient had had severe spasms for sixteen years. I removed a piece of the spinal accessory on the left side, and subsequently of the posterior branches of the second, third, and fourth cervical nerves, as well as every branch of nerve that I could find entering the splenius capitis muscle. This patient has remained well now for over two years. The other case was that of a gentleman aged fifty-seven. He had spasmodic movements of the neck, head, and face. This affection had commenced in the right sterno-mastoid, and he was cured by excision of a piece of the right spinal accessory and has remained well. Since this I have had two other cases.

A lady aged about forty-five suffered from spasmodic wryneck to the right, commencing fourteen years ago. It had been most assiduously treated with drugs of all kinds, galvanism, and blisters to the spine. Nothing had given her relief. In this case the external rotators on the right side were acting more strongly than the left sterno-mastoid, therefore I decided to operate upon the posterior branches of the cervical nerves in the first instance. Upon the first occasion I could not complete the operation, because the anæsthetist (Mr. Davis) warned me that the patient was showing signs of faintness. The wound was rather long in healing in consequence (I thought) of the patient's very weak state of health. I advised change of air to recruit her health. Six months later I operated upon the left spinal accessory, removing half an inch of it. The wound healed in a few days by first intention. This removed all the spasm from the sterno-mastoid. Subsequently, on April 23rd, I removed pieces from the second, third, and fourth posterior branches of the cervical nerves on the right side. The wound healed by first intention in a few days. The patient first sat up on the eighth day. On May 2nd I found the spasms had practically ceased from the splenius, and what were left seemed to be confined to the deep rotators supplied by the suboccipital nerve which I had not operated upon. On June 10th the patient was very much better, although not quite free from spasm; but as the improvement is still going on I hope this patient will be cured without further operation.

The second case is that of a lady over fifty years of age, who had suffered for over fourteen years from severe spasms. She was sent to me by Dr. Gowers, who had come to the conclusion that any benefit to be obtained from drugs was only of a very transitory character, and that operation was the only treatment likely to do positive good. Excision of a piece of the left spinal accessory has relieved the patient from the spasms of that muscle, and thereby removed the severe pain from which she was suffering and allowed her to rest at night. Other spasms at the back of the neck are also much relieved, and, if they do not disappear in a little time, can probably be removed by further operation. I defer full report of this case until it is completed.

Queen Anne-street, W.

A CASE OF MALIGNANT REMITTENT FEVER.

BY LOUIS WHEELER, M.B., B.CH.

A PATIENT aged twenty-eight, for ten years resident on the west coast of Africa, with occasional attacks of remittent fever whilst residing there, but exceptionally healthy otherwise, came under my care on the ss. *Niger* on his homeward voyage. He enjoyed capital health along the windward coast up to Sierra Leone, and was perhaps noticeably plethoric for a thin man. At 7.30 A.M. on the morning of May 10th, after having been on shore at Sierra Leone, he had an attack of bilious vomiting, and the thermometer registered 103·8°. An hour later a copious hæmatemesis occurred, which was checked with ice. At 1 P.M. he passed a copious bloody stool. At 4 P.M. his urine became dark claret in colour, with a peculiar musty odour, and very abundant in quantity. His skin was hot and tingling, without perspiration, and his pulse, which through the day had been beating 110 to the minute and very strong, became after the hæmaturia weak, irregular and intermittent. He had twenty grains of antipyrin in the early morning and through the day rice-water, brandy-and-soda and fluid nourishment, amounting in bulk to about four or five quarts, as he appeared to suffer from very distressing thirst. The evening temperature was 104·6°.—May 11th: Continuation of hæmaturia. Temperature 104°; pulse hard and small. Rapid development of jaundice, commencing at 10 A.M. and reaching maximum intensity at 4 P.M. Conjunctivæ almost orange, great thirst and drowsiness. At 5 P.M. a sudden and violent vomiting of bright-yellow bile occurred, which took place again twice within the following two hours, and visibly diminished the existing jaundice. Evening temperature 105°; urine very black and plentiful.—12th: Morning temperature 102·4°; urine clearing; jaundice diminished, but thirst still very intense. Vomiting through the day of material introduced into the stomach. Evening temperature 100·2°; urine dark yellow, and pulse much stronger. Treatment: Stimulants, iron, digitalis, and quinine, of each ten minims for a dose, thrice through the day.—13th: Morning temperature 99°, vomiting ceased, urine dark yellow and diminished in quantity. Great weakness but improved pulse and diminished jaundice. Treatment: Quinine (thirty grains through the day); stimulants, chicken broth, &c.—14th: Convalescent. No fever, urine normal in colour and quantity, and jaundice practically disappeared.

The interesting points of this very unique case of remittent fever were: (1) The very extensive loss of blood from all the excretory channels (stomach, kidneys, and bowel); (2) the virulence and rapid onset of the jaundice, pointing as I imagine to an energetic but obstructed liver; (3) the rapid convalescence and clearing up of the hæmaturia.

Belfast.

A Mirror OF HOSPITAL PRACTICE, BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Proœmium.

ST. MARY'S HOSPITAL.

SPASMODIC WRYNECK, TREATED BY RESECTION OF THE SPINAL ACCESSORY NERVE.

(Under the care of Mr. EDMUND OWEN, M.B., F.R.C.S.)

IN THE LANCET of March 26th, p. 713, attention was drawn in an annotation to the advances recently made in the surgical treatment of spasmodic wryneck, to the variations in the site of the lesion, and to the present obscurity of its pathology, which led of necessity to something like empiricism in the application of curative measures. The difficulty of gaining access to the affected nerves was dwelt upon, and the unsatisfactory results of stretching and of simple section were emphasised. A brief record was then given of some of the happier results that had attended free excision of the affected nerves in the hands of M. Petit, and reference was made to the work of Dr. Keen, Mr. Noble Smith, and Dr. Powers in the same direction. In another column of our present issue a further history is given of two of Mr. Smith's cases which have been previously recorded, and brief notes of two further cases are added. Mr. Pearce Gould also sends an account of a case in which he cut down on the nerve and was stretching it when it ruptured, and a considerable length of the proximal part of the trunk was pulled out. The patient made an excellent recovery. In the correspondence that followed the annotation, Dr. Harkin of Belfast, after condemning operative treatment save as an ultimate resource, recalled some interesting instances related by Dr. Morton Prince of Boston, U.S.A., of cure following the application of a blister to the fourth and fifth dorsal vertebræ. In a *brochure* published in 1891

Mr. Noble Smith, after detailing the unsatisfactory results that have followed other methods of treatment, gives a list of the cases in which excision of a portion of the spinal accessory nerve has been practised, the first being on a patient in the Middlesex Hospital, under Mr. Campbell de Morgan, in 1862. The result in the majority of the cases seems to have been very encouraging. In the present case an inch of the spinal accessory nerve was removed from near the anterior border of the sterno-mastoid muscle, and it was noticed that a greatly enlarged lymphatic gland impinged upon the nerve in this position, and might possibly have acted as a causative factor in inducing the spasm. The result as recorded five months afterwards is, though not absolutely satisfactory, decidedly encouraging. Mr. Owen closes his account with a few thoroughly practical hints as to the details of the operation, insisting especially on the necessity for a sufficiently long incision. For the notes of the case we are indebted to Mr. Walter Broadbent.

The patient was a widow of mature age, who was admitted to St. Mary's Hospital on Nov. 21st, 1891, on account of exhausting spasmodic contractions of the left sterno-mastoid muscle, by which the head was jerked down towards the left shoulder, the face being turned to the right side, and the chin thrown violently upwards. She said that about three years ago she first noticed the involuntary jerkings of the head, since which time the spasms have steadily increased, until at last they made her life positively miserable. After hurrying, and whenever, from one cause or another, the circulation was excited, the spasms were at their worst. Of such severity and so frequent occurrence were the attacks that the left side of the head was permanently drawn down towards that shoulder, the deformity causing considerable disfigurement. (A sister of the patient is said to be afflicted in a similar manner.) General and special medical treatment, together with massage and electricity, had been given a skilful and thorough but unsuccessful trial.

On the day after her admission, the patient, having been duly prepared for operation, Mr. Owen made an incision about three inches long, descending from the apex of the left mastoid process, along the anterior border of the sterno-mastoid, Mr. Page and Mr. Silcock assisting at the operation. The external jugular vein having been tied in two places and divided, and the edge of the sterno-mastoid having been raised, the posterior belly of the digastric was exposed, and close beneath it a greatly enlarged and livid lymphatic gland. It was thought that this gland might possibly be the cause of the trouble on account of its pressing upon the nerve; it was, therefore, removed. After a little more dissection the spinal accessory nerve was exposed and about an inch of it removed. The wound was irrigated with a weak mercuric lotion and closed with a continuous silk suture. There was a little delay in the healing; but there was practically no elevation of temperature, and the patient left the hospital in December apparently on the high road to complete recovery.

Result of operation.—The patient presented herself for examination on May 13th, looking considerably younger than before the operation, having lost her distressed aspect, and having put on weight. The exhausting movements of the head left her from the time of the neurectomy, though, to use her own words, "there is still a little something wrong; but it is improving." She holds her head straight, has perfect control over it, and is apparently well-satisfied with her present condition. Her chief trouble is now with the "weakness in the shoulder," which is probably to be explained by the sterno-mastoid and the trapezius having lost most of their supporting influence upon the clavicle and scapula; but even this is getting better.

As regards the operation, Mr. Owen would venture to call attention to the fact that the spinal accessory nerve enters the sterno-mastoid in so deep a situation that the muscle has to be well slackened and turned out before the nerve can be thoroughly exposed. A surgeon, therefore, who tried to reach it through a small incision might not improbably fail altogether to find it. Indeed, in the present instance, a small artery, descending obliquely over the internal jugular vein to enter the muscle, was at first taken for the nerve. But when pinched in the forceps it did not cause contraction of the muscles, as happened later when the nerve itself was so treated; the spinal accessory nerve, moreover, is, as exposed in the operation, a very large and conspicuous trunk. It enters the substance of the muscle at about the level of the angle of the jaw, but above this level it is deeply hidden beneath the muscle. When the muscle is well pulled outwards the nerve is tightly stretched and is thus readily made out.

The points to be borne in mind are that, as the nerve lies deeply beneath the muscle, a free incision must be made to find it; that it is by no means near the anterior border of the muscle; that it runs almost vertically; and that it enters the deep aspect of the muscle at about the level of the angle of the jaw. The incision should be begun at the tip of the mastoid process, and the hinder border of the posterior belly of the digastric and the conspicuous internal jugular vein afford the best landmarks. The operation, though straightforward, is by no means easy; it is far better than that of seeking the nerve as it emerges from the sterno-mastoid.

BRADFORD INFIRMARY, YORKS.

SPASMODIC TORTICOLLIS; EXCISION OF A PIECE OF RIGHT SPINAL ACCESSORY NERVE.

(Under the care of Dr. MAJOR and Mr. J. APPLEYARD.)

THE following case illustrates the successful result of the excision of a piece of the right spinal accessory nerve for spasmodic torticollis of the right side, after failure to obtain much relief from continuous current, cannabis indica, and hypodermic injections of morphia. The symptoms were of seven months' duration and of very gradual onset. In this, as in Mr. Owen's case above recorded, the nerve was not found immediately; the anterior border of the muscle was exposed, but the nerve entered that structure on its posterior aspect, and in both cases its point of entrance was on a level with the angle of the jaw. Six months later, as will be seen by the note appended to the end of the case, the relief on the side operated on was complete, but a similar spasmodic condition had developed on the opposite side. It is still too early to assign its just position to this operation, but the communications published this week form an interesting continuation of the series. It is only when the after histories of the whole have been ascertained that a fair judgment of this method of treatment will be possible. All that can be said at present is that the results are sufficiently encouraging to induce a further trial of the procedure in these very distressing cases.

M. A. B——, married, two children and one miscarriage, became an out-patient of the Bradford Infirmary on Aug. 18th, 1891, under Dr. Major, having been sent by Mr. Herbert Jones of Shipley. She was a strong, healthy woman, never having had rheumatic fever, scarlet fever, specific disease, chorea, or hysteria. She has no knowledge of any shock or injury; but seven months ago she felt a little sensation of tightness in the head, and under slight exciting conditions—as when in the presence of company—a feeble, sudden twist of the head, with chin towards the left shoulder, would come on at rare intervals. This tendency has gradually increased, and markedly so, about one month ago, when she was nursing a serious case and was much deprived of sleep. On her return home the spasms increased in frequency and in intensity, and she came under the care of Mr. Jones, who advised her to become an out-patient under Dr. Major.

State when seen as out-patient.—At night, and when lying down, the spasms are quiescent. On first rising out of bed they develop slightly, and increase in severity as she begins to move about, coming on about every half-hour. In an attack her face turns towards the left shoulder, and severe pain is complained of at the back of the head and neck. The general health is good, menses regular, and the lungs and heart sound. No disease of the spinal column, no albuminuria, and no tender teeth, although there are carious stumps. During the time she was an out-patient, from Aug. 18th to the 31st, the continuous current was applied three times a week, and arseniate of sodium with bromide of sodium administered internally, with little or no benefit.

On Sept. 1st she became an in-patient under Dr. Major, and from Sept. 1st to the 27th cannabis indica in gradually increasing doses was given; yet no improvement.

Sept. 27th to Oct. 19th.—Hypodermic injections of morphia beginning with one-eighth of a grain twice daily, and gradually increasing to half a grain, with some degree of

relief. Yet the spasms did recur, and occasionally with severity, as the effects of the morphia passed away. On Oct. 8th it was noticed that pressure on a point two inches below the lobule of the right ear, on the line between the mastoid process and the right sterno-clavicular articulation, would stop the spasm at once, and control it for a time.

Oct. 19th.—Patient discharged, a little relieved, but advised to return and have excision of a portion of the right spinal accessory nerve performed, if the spasm and pain came on again severely.

27th.—The patient returned to-day, and was admitted to the surgical wards under Mr. Appleyard. The spasms and severe pain at the back of the head and neck have recurred, almost as bad as ever, causing her much distress and loss of sleep, so that her health begins to suffer.

30th.—Under chloroform, with the head on its side and face turned to the left, an incision for about three and a half inches was made from the right mastoid process, downwards along the anterior edge of the right sterno-mastoid muscle, the fascial sheath opened, the anterior border of the muscle defined, and the tip of the right forefinger inserted near the mastoid process under the muscle, and gradually but gently worked downwards inside the sheath, each resisting vessel or collection of fibres drawn out with a blunt hook for inspection before division, and ligature when necessary. At last the nerve (spinal accessory), after some delay and difficulty, was felt firmly resisting the progress of the finger, but nearer to the posterior edge of the muscle than was expected, and entering the muscle about the level of the lower border of the angle of the jaw. It was hooked forwards for inspection, found to be a little thicker than a crowquill, and certainly solid and made up of nerve bundles. A piece three-quarters of an inch long was excised; one small artery and one vein were ligatured; there was only slight loss of blood; a rubber drainage-tube was inserted at the lower end of the wound; the edges were brought together by catgut sutures; iodoform and boracic acid were dusted on; a little green protective placed directly over the wound, and sublimate wool with a gauze bandage over the whole.

31st.—Head still takes the position of torticollis (face to left), but there is complete absence of spasm and of pain. Temperature 98·2°.

Nov. 1st.—Dressed; tube shortened; no suppuration. Temperature 98·4°.

2nd.—Primary union of upper two-thirds; drainage-tube removed.

3rd.—Poroplastic collar fitted and applied to the neck.

4th.—No recurrence of spasmodic movements or of pain.

6th.—Wound healed. Temperature natural throughout. No spasms and no pain.

14th.—Discharged completely relieved, having had no recurrence either of pain or of spasm. Face directed straight forwards.

Note.—Mr. H. Jones wrote to-day (April 11th, 1892) saying that he saw the patient ten days ago, and she had had no recurrence of symptoms of any kind.

May 10th.—The patient has returned with the development of a similar condition on the left side of the neck, but the relief on the right side is still perfect and complete.

Medical Societies.

ROYAL MEDICAL & CHIRURGICAL SOCIETY.

Pylorectomy.—Jejunostomy.—Ovarian Pregnancy.—Amputation in Diabetes Mellitus.

THE last ordinary meeting of this Society for the present session was held on June 14th, the President, Sir Andrew Clark, in the chair.

Mr. MAYO ROBSON of Leeds read a paper on two cases of Pylorectomy and one of Jejunostomy. The cases were brought forward—(1) because it was important that all serious and especially new operative procedures should be chronicled for statistical and comparative purposes; (2) because it was not yet clearly established that these operations for cancer could be relied on to produce such an amount of relief as to warrant their continuance. Concerning the operations of gastrostomy for impermeable cancer of the œsophagus, and gastro-enterostomy for pyloric obstruction, there seemed to be sufficient evidence to prove that the relief afforded was amply sufficient to justify their continuance. A sequence of gastro-enterostomy, the regurgitation of the bowel contents into the stomach, was mentioned. The cases detailed were: A case of pylorectomy for pyloric stenosis due to malignant tumour, followed by recovery; there was recurrence of symptoms due to contraction of cicatrix. Gastro-enterostomy was performed four months after. Regurgitation of fæcal matter occurred into the stomach without intestinal obstruction; want of assimilation of food and fæcal poisoning resulted. The second case was one of pylorectomy for pyloric stenosis due to malignant tumour. There was apparent loss of power of assimilation, and death occurred from exhaustion on the fifth day. In the third case jejunostomy had been performed for extensive cancer of the stomach, rendering feeding by the mouth impossible; recovery followed. Alimentation was carried on through the artificial opening for two months. Ultimately death resulted from exhaustion due to the progress of the disease. He advocated the performance of jejunostomy, but only after clear explanation to the friends and the patient that the prolongation of life could only be for a limited time, and that much real comfort from the operation could not otherwise be expected. No single operation for pylorectomy was to be advised; the method of procedure should be varied according to circumstances—e.g., where the disease was very extensive, the tumour being fixed and the glands enlarged, pylorectomy was to be avoided and gastro-enterostomy performed. Where the disease was extensive, but not too far advanced to prevent complete removal, the combined operations of pylorectomy and gastro-enterostomy, as in cases reported by Messrs. Lowson, Greig Smith, Bull, and Jessett, were advocated. Where, however, the disease was in an early stage, simple pylorectomy, with suture of the duodenal and stomach openings, was probably the simplest and safest procedure. In order to shorten and simplify the operation, and to prevent recontraction of the pylorus, a modification was suggested by means of a decalcified bone or gelatine tube shaped like a cotton reel, and in the use of which only two continuous sutures were required. The method was illustrated by diagrams and models. The author believed that this method was applicable to, and had certain advantages in, the performance of gastro-enterostomy, intestinal implantation, lateral intestinal anastomosis, and end-to-end enterectomy.—Mr. JESSETT held that these operations had hitherto met with such success as to warrant their continuance. He said that he had done nine gastro-enterostomies, with five successes. One was done two years ago, a second fifteen months ago, and a third nine months ago; all had gained weight and strength. Two had died: one six months, and one five months after operation. Of the four immediately fatal cases, one died of exhaustion soon after operation, one of septic peritonitis, and another from a leakage. He had only done one case of pylorectomy (last July). She had gained more than two stones in weight since the operation. He had had five cases of jejunostomy, and all recovered. One had lived for nine months after the operation, and another for six. They were all instances of extensive disease of the stomach, not admitting of pylorectomy or of gastro-enterostomy. In suturing he had discarded the use of silk ligature for chromic catgut. The bobbins, which were shown, were much like a tube he had used in conjunction with the bone plates.—Mr. BARKER said that surgeons would feel grateful for this new modification in the operation, which would very materially shorten the procedure in pylorectomy. He held that it was still an open question whether pylorectomy should hold a place in surgical procedures. If the disease were advanced it was undoubtedly unjustifiable; if it were not advanced, the relief gained by gastro-enterostomy was probably as great as that to be obtained by pylorectomy. In a very early case with very slow growth pylorectomy might, perhaps, be admissible, but his impression was that before long it would be entirely abandoned for gastro-enterostomy in cancer cases. He had only done gastro-enterostomy twice successfully, and regurgitation occurred in the first case, the vomit being most offensive. Believing it was due to gravitation, he placed his patient in a semi-recumbent position, and she made a good recovery. He did not think that there could be much danger from stercoraceous poisoning, for the patients were usually much starved

before the operation. As to the kind of suture to be employed, he was more than ever inclined to use fine sterilised silk, and he had never seen it give rise to unpleasantness. The essence of the author's process was that it brought the mucous surfaces rapidly together and obtained a quick union of their edges. The bobbin was used only as an aid to the suturing.—Sir ANDREW CLARK said that physicians were apt to think that sufficient care was not taken with the feeding after the operation. He inquired what was the nature of the nutrient enemata that were employed? What were the usual materials used for feeding by mouth? in what quantities and at what times? and did the author observe any difference as to nutritive value between fresh foods and preserved foods?—Mr. ROBSON, in reply, said that the sooner feeding was begun by mouth the better. He gave by mouth meat juice, liquid peptonoids, together with a little condensed peptonised milk. He also used nutrient enemata, containing three ounces of ordinary beef tea, half an ounce of the peptonised milk, and a little brandy. He only used opium if the enemata were not retained. He had sometimes used the freshly expressed juice of meat. The great advantage of the bobbin was that it shortened the method. Pylorectomy could only be adopted in very exceptional cases, where the disease was very early. He agreed that gastro-enterostomy was an operation more frequently to be employed, and the more useful of the two. As to regurgitation: in one case it produced the most intense nausea, and appeared to hasten the lethal result, the breath being horrible in odour. He decidedly preferred silk sutures, regarding them as safer. But when Senn's plates were used the bowel had to be perforated, and then it was a disadvantage to use silk. The bobbin enabled one to draw the sutures in the mucous membrane quite tight. It could be introduced through a smaller opening than that required for Senn's plates, and he had used it in situations where the plates were of no use.

Mr. LAWSON TAIT of Birmingham communicated a paper on the Alleged Occurrence of Ovarian Pregnancy, being an explanation of some cases which had been published as belonging to this variety of ectopic gestation. The author published a scheme of ectopic gestation, in which he placed the so-called "ovarian pregnancy" as a first variety, marking it as "possible, but not yet proved." He designated it, even if proved, as a mere pathological curiosity, devoid of all kinds of clinical interest and importance. Since the publication of this scheme several attempts had been made to prove, in recorded instances and preparations, that a real ovarian pregnancy had occurred, the main feature of such cases being the discovery in the wall of the gestation sac of true ovarian tissue, together with the apparent absence of the ovary otherwise than as constituting the sac on the corresponding side. The author advanced another and more recent explanation of the nature of these cases, and he showed by actual preparation and diagrammatic explanation that the broad ligament in its extension over an ordinary parovarian cyst would extend the Fallopian by traction to an abnormal length of as much as fifteen inches, and the same traction acting circularly from the hilum of the ovary could tease out the ovary into a very extensive thin plate of ovarian tissue. Actual specimens exhibited demonstrated this. The traction of the broad ligament in the development of a broad-ligament pregnancy carried on exactly the same process, and, by pulling out the ovary into a thin layer, rendered the discovery of ovarian elements in the wall of the cyst not only possible but inevitable. It was thus perfectly clear that a broad-ligament pregnancy might be—and the author believes that in all these cases had been—mistaken for an ovarian pregnancy.—Mr. ALBAN DORAN brought down a series of specimens to illustrate the lesions that might simulate ovarian pregnancy. The ovary might get jammed between the uterus and the gestation sac as the tube enlarged, and then it became adherent. Freund of Strasburg had based his opinions as to ovarian pregnancy on two operations done at term; but it was quite impossible then to find out the relation of the parts owing to multiple adhesions. When a cyst formed in the broad ligament the tube became stretched in its long axis instead of its short axis, and the same thing happened in a broad-ligament gestation resulting from rupture of the tube. When a tubal cyst burst in this way between the layers of the broad ligament there followed later either direct incorporation of the ovary with the fœtal cyst wall, or the ovary got jammed very tightly between the uterus and the fœtal sac, and then became stretched out over it. In a tubal abortion the ovum, being partly extruded, lay in the fimbriæ, and so might easily become attached to the ovary, and later the tube might retract and become separated. This of course would closely simulate true ovarian pregnancy.—Mr. ROBSON said he had operated on ten tubal gestations, and out of that number he thought that two might have been ovarian, though neither of them turned out to be so on careful subsequent examination. In one case, that of a lady from whom he had already removed a ruptured tube on the right side, he had to operate again on account of a swelling to the left of the uterus, associated with a history like that of ectopic pregnancy. He found and removed a very large apoplectic ovary, but, on careful examination, no trace of membranes could be found in it. The oviduct was apparently quite healthy, and the fimbriæ were normal.—Mr. TAIT, in reply, asked that an addendum might be added to his paper, as he had found that Drs. Hart and Barbour, in the *Edinburgh Medical Journal* for 1888, had predated him; he read some extracts from their paper. His object was to insist on this curious power of movement of the peritoneum which could tease out the ovary into a thin diaphanous lamina. The investigation of these cases required the most extreme care, and he laid so much stress on the importance of this question because his contention, if correct, supported so strongly the views he had already published.

Mr. W. G SPENCER finally read a paper on Amputation in Diabetes Mellitus. The author brought forward evidence to show that the timely adoption of amputation above the knee or elbow for the removal of severe inflammatory complications would prolong life, and very much reduce the amount of sugar excreted before operation. He urged that failures had resulted from amputating through the foot or leg when the vessels had been already narrowed or thrombosed, and that it was useless to attempt the reduction of the sugar by drugs and diet when a severe inflammatory lesion was present. Cases were quoted to show that healing readily took place in diabetics, especially a malignant case of diabetes mellitus attacked with erysipelas and abscess, and which died in diabetic coma three weeks after healing. He then compared two cases: one of suppuration around the femur above the knee with no bone exposed, treated by palliative measures, ending in diabetic coma; the other of suppuration around the elbow with the lower third of the humerus bare, which recovered good general health after amputation through the arm. Urine before operation 1040, 10 gr. to 1 oz. of sugar; after operation 1023, sugar a constant trace. Drugs and diet influenced neither case, except the latter after healing. Reference was made to other cases by Professor Roser, König, Kraske, and Heidenhain. Professor Küster amputated through the thigh in eleven cases of diabetic gangrene: six recoveries—two primary, four after limited ulceration. Sugar before operation—(1) large, (2) 5 per cent, (3) 2 per cent., (4) 3·6 per cent., with one-third albumen, (5) 1 per cent., (6) a trace. Five fatal: (1) In coma at operation; (2) double amputation at seven days' interval; (3), (4), (5) very albuminous urine. Stumps of fatal cases tending to heal without suppuration. Professor Küster's experience in senile and diabetic gangrene was quoted in support of the high amputation advocated by Mr. Hutchinson. Amputation four times of a toe—once through the foot by a Lisfranc, three times through the foot by a Chopart, six times through the leg. All became again gangrenous, and only recovered after secondary amputation through the thigh, except two legs in which the ulceration and necrosis were limited. Three cases of diabetic gangrene under Professor König and Mr. Langton recovered from amputation through the leg after ulceration and necrosis. Primary union had only been obtained after a high operation. Indications for operating in gangrene were mentioned, and cases illustrating the more favourable character of perforating ulcers, including one under Mr. Thomas Smith.

UNDERGROUND DWELLINGS, ST. PANCRAS.—Active steps are being taken by the St. Pancras Health Committee to prevent the occupation of cellar-dwellings in the parish. Legal notices have been served upon all such owners, requiring them either to comply with the Metropolis Public Health Act of 1891, or not to allow these dwellings to be used for human habitation.

Reviews and Notices of Books.

Surgical Diseases of the Ovaries and Fallopian Tubes, including Tubal Pregnancy. By J. BLAND SUTTON, F.R.C.S. London: Cassell and Company, Limited.

THIS is a book that ought to be studied by all interested in the diseases of women, for it is not only a record of personal experience but credit is given to others for work done in this department of practice. The author, however, has difficulty sometimes in utilising the records of cases of several observers—for instance, in regard to the important subject of extra-uterine or ectopic gestation—owing to the erroneous statements made in order to support preconceived notions of pathology. The book consists of four parts, diseases of the ovaries being treated in the first. As a preliminary investigation the subject of menstruation is discussed, for in ovarian and tubal diseases there is often some interference with the menstrual function. In regard to the question of the alleged exfoliation of the uterine mucous membrane during the period, the author's studies of the endometria obtained from young women dying during menstruation induce him to believe that the loss of tissue described by many writers is the result of post-mortem change. With a view of getting more definite information he relates his systematic observations on Macaque monkeys in which menstruation takes place. He could not find any trace of destructive changes either in the uterus or Fallopian tubes, or even shedding of the epithelium, and his "observations threw no light whatever on the source or cause of the hæmorrhage." The second part, dealing with morbid conditions of the Fallopian tubes, ought to be carefully studied. We share the hope expressed by the author that, as so much attention is now being given to diseases of the uterine appendages, it may be possible to formulate more definitely the symptoms and physical signs of these, so that the treatment followed may be rational and not too heroic, thus avoiding the errors which he admits have been made by several of his friends, as in two cases where pelvic pain existed, inducing "surgeons to remove the ovaries, even in the absence of physical signs." He says: "Such ovaries have been submitted to me for microscopical examination, but I have not succeeded in detecting any evidence of disease in them." The chapter dealing with catarrhal salpingitis in relation to adenoma of the cervix uteri is very instructive. In the third part tubal pregnancy is discussed in an able manner, and the eleven chapters form a valuable contribution to our knowledge of many important points connected with this subject of the causes of which we know little. The concluding part of the work discusses the methods of performing operations for ovarian and tubal diseases and the last chapter is occupied with the consideration of the effects of the removal of the ovaries on the secondary sexual characters of women. The book will help to clear up many difficulties connected with the pathology of the diseases of the ovaries and Fallopian tubes. It contains numerous illustrations, nearly all of which have been produced under the author's personal superintendence.

Diseases of the Nose and its Accessory Cavities. By GRENVILLE MACDONALD, M.D. Lond. Second Edition. Pp. 381. London: Alexander P. Watt. 1892.

THE early appearance of a second edition of this eminently practical manual indicates that the author was meeting a recognised want when a little more than a twelvemonth ago he produced the first edition. The study of rhinology is one which has attracted much attention of late years, and it is distinctly an advantage to have an opportunity of studying the methods of diagnosis and of treatment which are followed by one who has had great facilities of working at this subject, and who is yet sufficiently open-minded to feel that the future will remove "some of the prevalent exaggerations as to the remoter effects of nose disease." Much harm is done to the progress of truly scientific research by running any special subject too closely, until general scepticism results, more particularly when the means of diagnosis are thought to be out of the reach of the general practitioner, and the necessity for treatment therefore seems open to doubt. A careful perusal of this manual indicates that the author is quite aware of these dangers, and that he is writing for the assistance and the guidance of those who desire to follow up the study patiently and hopefully. The book literally bristles with practical hints which can be applied by all who are willing to devote the time to acquire sufficient dexterity with the methods advocated and sufficient knowledge of the sometimes slight deviations from normal conditions which constitute removable causes of discomfort, or even proceed, if unchecked, to more serious conditions.

The first two chapters are devoted to the physiology of nasal respiration and to a description of the methods of examining the nasal passages. The influence of diminished air tension in the nose, where the walls are rigid, in causing hyperæmia and in turn leading to increase in bulk of one or more of the tissues affected, thus laying the foundation for hypertrophy and œdema, forms a section which is full of interest, while it is clearly and convincingly stated. Under the heading of "acute rhinitis" three varieties are described—catarrhal, dry, and croupous. The last, which has only recently attracted attention, is of great interest, as the patch so often resembles the false membrane of diphtheria. The author has, however, seen this condition after the application of the electric cautery and he holds that it is merely the expression of the intensity of the inflammatory action in those peculiarly predisposed. The facts here stated seem to have an important bearing upon the occasional appearance of false membrane in other parts of the respiratory passages.

The varieties of chronic rhinitis are dealt with in considerable detail, the value of cocaine in diagnosis is insisted upon and the amount of benefit that may be anticipated from treatment is also clearly stated. Incidentally the author notes the frequency with which reflex phenomena disappear with the removal of forms of nasal obstruction; his experience certainly does not coincide with that of Dr. Goodhart, as expressed in his Harveian Lectures on Common Neuroses. Dr. MacDonald considers that surgical measures are frequently the only satisfactory methods to adopt in cases of hypertrophy; while Dr. Goodhart, hesitating to use the emphatic "never," substitutes practically the Gilbertian equivalent of "hardly ever." The description of the pathology of the development of osseous cysts is new in the present edition, and forms an interesting section; the author is most probably correct in regarding hypertrophy as the first stage which leads on to the formation of adhesions, resulting in the production of a cavity lined with mucous membrane and continuing its secretion. The dangers of the development of sarcomatous or cancerous tumours after the removal of nasal polypus, as expressed by Mr. Erichsen, do not accord with the author's experience. A great deal of space is necessarily devoted to ozæna, and here, as in so many other parts of the book, the symptomatology receives full consideration. The dependence of the odour upon putrefactive changes and the various explanatory theories and observations are duly noted, though it is held that the important distinction between the secretion found in ozæna and simple pus has been neglected and that putrefactive decomposition of mucus, as well as that of pus, may possibly explain the characteristic odour developed.

The views expressed upon nasal asthma have become more precise since the issue of the first edition; originally the probable beneficial results of treatment by operation were spoken of hopefully, but with some degree of uncertainty. Further experience has enabled Dr. MacDonald to collect notes of sundry cases illustrative of the benefits which have followed the removal of various forms of obstruction. Still the view is stated, with due reservation, that in any asthmatic patient, whether the disease is spasmodic or bronchitic, any abnormality of the nose should be rectified.

It is impossible within reasonable limits to give further analysis of this interesting book. The section upon post-nasal growths will well repay perusal, and its value is greatly enhanced by the careful illustrations drawn from life by Mr. Proctor Hutchinson. The engravings in the text are admirable and the chromo-lithograph which forms the frontispiece is well executed and free from the usual exaggerations of colour and form which so frequently perplex instead of giving assistance. No pains seem to have been spared in the preparation of the second edition; many subjects have been treated at greater length, and several new illustrations have been added. Having said so much in praise of the volume, and of the clearness and excellence of the original illustrations, it is in no carping spirit that we note the introduction of some few redundant illustrations of instruments, to which evidently but little importance is attached by the author himself, as they are barely mentioned in the text.

ROYAL SOCIETY CONVERSAZIONE.

THE exhibits at the conversazione of the Royal Society on Wednesday last were as numerous as they were on the occasion in May, although several of the apparatus and experiments then shown were, doubtless on account of their interest, to be witnessed again. Lord Kelvin, who was accompanied by Lady Kelvin, received a goodly number of Fellows, but the greater number of those present were visitors. In the reception-room the attention of the company was at once attracted to the extremely interesting water-colour drawings of Greek temples at Athens as they appeared in 1847, illustrative of current investigations by the exhibitor, Mr. F. C. Penrose, on the orientation of ancient Greek temples. These have been recently examined for the purpose of obtaining astronomically their exact orientation as a means of discovering the dates of their foundation. Probably no better specimens of mammoth remains have ever been found in Britain than those fortunately secured and exhibited by Dr. H. Hicks. The remains were discovered in Endsleigh-street, N.W., in March, 1892, in an excavation for the purpose of deepening the sewer at a depth of twenty-two feet from the present surface of the street. When discovered the epiphyses of the bones of the young mammoth shown were detached, but were found close to the shafts. The tusk, which must have been about 12ft. in length, belonged to an adult and much larger animal. Close by this exhibit was a remarkable specimen of a new Theriodont reptile contributed by Professor H. G. Seeley. The back of the head closely resembles Dicynodon, but in other characters it shows remarkable resemblances to a mammal. The molar teeth resemble those of a dog; the articulation of the ribs is mammalian; the dorsal ribs interlock in a way previously unknown; the scapula is also exceptionally mammalian, showing the origin of its spine. The damage to plants caused by London fogs was admirably illustrated in the water-colour sketches shown by Professor F. W. Oliver. The effects are noted at considerable distances from the metropolis, as at Cooper's Hill and Dorking. The injury is most probably due to the direct action of the sulphurous acid of the fog on the living substance of the foliage and flowers, and in others to the cumulative action of deposits of sulphuric acid. The reason, explained Professor Crookes, that, when once nitrogen is set on fire, the flame does not spread throughout the whole atmosphere and deluge the world in a sea of nitric acid is that the igniting point of nitrogen is higher than the temperature produced by its combustion. Nitrogen, however, as he easily demonstrated by means of a powerful coil, is a combustible gas—that is to say, a mixture of nitrogen and oxygen (air) will, under certain conditions, burn with a flame and produce nitrous and nitric acids. An electric current of sixty-five volts and fifteen ampères, alternating 130 times a second, is passed through the primary of a large induction-coil, when an arching flame, consisting chiefly of burning nitrogen, issues from each of the secondary poles meeting at the centre. The flame is easily blown out, but it can be relighted by a taper. The hot gases rising from the flame have a strong odour of nitrous acid, and when it is produced in a closed globe the interior rapidly fills with dense red fumes. Professor Crookes repeated some of the wondrous experiments with electric currents of high potential and extreme frequency which proved such a striking feature of the May exhibition. Mr. Wimshurst, with a powerful machine, gave illustrations of electrical discharges over certain prepared surfaces, the effects vying in splendour with the previous exhibit. As it was shown, when electrical discharges are passed over imperfectly conducting surfaces of considerable area the flashes display branch-like forms resembling lightning. The colour of the flashes can be varied by suitably selecting the conducting medium. With the highest difference of potential the discharge sparks are of great density, and even attain seven feet in length. Mr. G. J. Romanes exhibited some interesting results of experimental breeding, especially with reference to heredity. He holds briefly that the experiments prove the error of those writers who assume that an act of fertilisation consists in the male and female elements intimately blending together after the manner of a merely mechanical mixture, so that the off-pring always presents characters more or less intermediate between those of its parents. In many cases this does happen, but in many other cases the admixture of hereditary elements is by no means intimate—those derived from the father and mother appearing to remain respectively grouped together, with the interesting results shown in the exhibit. A very ingenious instrument for measuring the thermal expansion of minute solid bodies up to high temperatures, and even tracing the volume change of the silicates up to and over the interval of plasticity, formed the subject of Mr. J. Joly's exhibit. We may soon expect to handle in everyday use articles made of that light and beautiful metal, aluminium. Stethoscopes, theodolites, telescopes, microscopes, camera fittings, and mounted lenses were amongst the pretty articles of aluminium exhibited by the Phœnix Engineering Company, to show the applicability of the metal to the construction of scientific instruments. Dr. F. W. Edridge Green showed a capital series of coloured pictures executed by colour-blind persons, the pictures showing the mistakes made by the colour-blind in matching colours, the different degrees of colour-blindness being thus represented. Demonstrations by means of the electric lantern fell to the lot of Mr. Savile Kent, Mr. E. B. Poulton, Professor Norman Lockyer, and Professor C. V. Boys. Professor Lockyer exhibited his remarkably fine series of celestial photographs of recent production, while Professor Boys showed his extraordinary photographs of flying bullets. Finally, the visitors were favoured with a mellow but distinct rendering of the opera "Salammbo," as it was being performed in Paris on Wednesday night. The apparatus was exhibited by the Postmaster-General, and a number of telephones were provided to enable ten persons to listen simultaneously.

INFECTIOUS DISEASES HOSPITAL AT CLIFTON.—This hospital, which has been erected by a joint committee representing the Brighouse and Rastrick Local Boards and the Halifax Rural Sanitary Committee, was formally opened on the 10th inst. It is situated at Thornhills, Clifton. The main buildings are of wood, covered with galvanised metal. There are four wards, each having twelve beds, a convalescent ward, matron's and nurses' apartments, domestic offices, and other necessary conveniences for an infectious hospital.

THE LANCET.

LONDON: SATURDAY, JUNE 18, 1892.

AT the meeting of the Council of the Royal College of Surgeons of England held on Thursday, June 9th, the report of the committee appointed by the Council in April, to consider "whether any, and if so what, further advantages can be extended to the Fellows," was received and adopted. When the committee was appointed we were under the impression that it was open to the committee to consider any subject affecting the interest of the Fellows, whether provided for or not in the Charters and By-laws of the College. It would appear, however, from the addendum to the report, drawn up at the instance of three members of the committee—Mr. MACNAMARA, Mr. WILLETT, and Mr. RIVINGTON—and ordered by the Council to be entered on the minutes, that the deliberations of the committee were, for some reason or other, confined to matters not regulated by the Charters and By-laws. That this fact should be placed on record for future guidance and for the purpose of showing that they were not responsible for the limitation of the inquiry was evidently advocated by the three members of the committee already mentioned and opposed as evidently by others; otherwise there would have been no reason for not inserting the words in their proper place in the text of the report. Why the insertion of the words should have been objected to at all in committee it is very difficult for anyone outside the Council to understand; but as they were it is probable that they were objected to equally at the Council meetings, and that the Council decided by a majority that they should stand and be entered on the minutes. Be this as it may, the deliberations of the committee were confined to three principal points—viz.: (1) meetings of Fellows, (2) common room for Fellows, and (3) admission of Fellows as visitors to meetings of the Council. On the third point the committee were not prepared to make any recommendation. With regard to the second point—viz., common room for Fellows,—the committee found that legally there might be some difficulty in permanently assigning any part of the corporate premises to the exclusive use of any section of the corporation, and were not therefore prepared to recommend the provision of a common room for the exclusive use of the Fellows as suggested to the Council by certain Fellows of the College, but recommended "that the room adjoining the secretary's office now forming a part of the library not used by readers be furnished as a common room for the use of Fellows and Members of the College." With regard to the first point—viz., meetings of Fellows,—the committee recommended "that meetings of Fellows apart from the Members, at which the President or other member of the Council acting for him shall preside, be summoned by the President and Council for consultative purposes at such times and for such objects as may by the Council be thought desirable, either with or without a requisition from the Fellows." In making this recommendation, however, the committee thought it desirable to state that in the event of its adoption by the Council it would not, in their opinion, be reasonable to refuse to summon a similar meeting of Members upon the same conditions. The conclusions of the committee confirm the opinion which we expressed last week, that it is not possible for the Council to grant privileges to one section of the Members of the College—viz., the Fellows—without granting similar privileges to the Members at large. The Association of Fellows requested the Council to grant to the Fellows a common room at the College. A committee of Council takes the opinion of the legal advisers of the Council, and recommends the Council to grant a common room for the use of the Fellows and Members. The Association of Fellows pressed upon the Council of the College the advisability of consulting the Fellows apart from the Members. The committee of Council, acting again, we presume, under legal advice, recommends the Council to adopt this course, but at the same time intimates that if a meeting of the Fellows is summoned by the Council to consider any special topic, the Council could not reasonably refuse to call a similar meeting of Members if the Members wished for it. This result ought materially to strengthen the hands of the Association of Members of the College in their efforts to raise the constitutional position of the Members, and should be an incentive to increased exertion and final success. It also suggests the question, What, after all, have the Fellows gained from the goodwill of the Council and the inquiries of the committee? They have gained one point, and one only, and that is the privilege of being consulted by the Council separately from the Members. This is a privilege of considerable importance, but it is only a privilege to be enjoyed at such times and on such occasions as the Council think desirable, and is revocable at the pleasure of the Council. To be of real value the privilege should be converted into a right by the sanction of a Charter. Moreover, the proceedings of an assembly of Fellows should be regulated according to the rules governing similar assemblies at other institutions. The meetings at the College of Surgeons are distinguished by an utter absence of proper organisation and rules of procedure, and the Council of the College appears to entertain a special predilection for casual assemblies summoned at random and without any special purpose. Such is to be the meeting of Fellows which the Council proposes to hold after the election at the College on July 7th. The Fellows are to be invited to meet the Council, but whether for convivial purposes, for admonition, for instruction, or for any other end, the Council does not specify. This method is peculiar to the Council of the Royal College of Surgeons of England, which will not submit to any kind of restriction on the free exercise of its good pleasure and authority. It certainly wears the aspect, and is open to the interpretation, of elaborate trifling; but probably it is the result of a determination to prevent the Council from advancing in accordance with opinion outside the Council except at a snail's pace. The promoters of the meeting must have had some object in view in summoning it; but why the object should not be stated is beyond the reach of any ordinary intellect outside the Council chamber, and we must wait for the meeting itself before the veil can be withdrawn. It is of little use to waste time in specula-

tion upon the subject, and probably the oracle would only return an ambiguous answer if directly interrogated. The practical point is for all Fellows who are interested in the constitutional reform of the College to attend the meeting and to be prepared to move resolutions in favour of those principles which must commend themselves to a large majority of the constituency of the College.

WE are only at the beginning of the system of notification, and there will be much need for patience, in the case both of those who notify and of magistrates who have to act upon the certificates of medical men. A case has just been heard before Mr. CURTIS BENNETT at the West London Police-court which thoughtless people will say illustrates nothing but the differences of doctors, but in which sensible people will see a striking illustration of the difficulties of medical practice. It was the case of the child of a Mrs. WILLIAMS, who keeps a mangle, and the patient was thought by Mr. COONEY, the district medical officer and also medical officer of health, to be suffering from scarlet fever on May 19th. The child was in a room with three women and two other children. Nothing could be more anxious than the right diagnosis and disposal of such a case by a gentleman officially representing the medical interests of the district as Mr. COONEY did. Nothing could be more urgent than the duty of having the child removed from such apartments, in the interest of the public and the remaining children, if the case were really one of scarlet fever. On the other hand, if it were not so, its removal would be an intolerable grief to its mother, who had already lost many children, and a grave risk of infection to the child itself. The mother did not accept Mr. COONEY'S diagnosis, which he followed up by sending the ambulance. The mother meantime sought other opinions, including that of Dr. W. F. CLARKE, as undoubtedly a poor person is entitled to do as much as her richer neighbours. Mrs. WILLIAMS had sent for Mr. JOSEPH HENRY BUTLER before sending for Dr. CLARKE, but he declined to take charge of the case, as Mr. COONEY had seen it. Dr. CLARKE was quite unaware all the time that any other medical man was attending. He could see no symptom of scarlet fever, but observed a little bronchitis with slight fever and enlarged tonsils. Such is the simple case out of which has arisen a remarkable difference of medical opinion, and in which the bench itself has not shown to the best possible advantage. Mr. COONEY and Dr. CLARKE acted independently of each other. They each fortified themselves with other medical opinions, and in the long run no less than nine gentlemen were involved in the diagnosis of this poor little child's case, including such experts as Dr. CAYLEY, Dr. SIDNEY PHILLIPS, Mr. BRUCE, medical superintendent of the Western Fever Hospital, and others. Of the nine, three were in favour of the diagnosis of scarlet fever, including Mr. BRUCE. Five were decidedly against it, including Dr. CAYLEY and Dr. PHILLIPS. Mr. WOODHOUSE was uncertain. He thought the child should be isolated, but did not like definitely to say that it was infectious. Dr. CAYLEY recommended the child for admission to the Middlesex Hospital, showing how absolute was his conviction of the absence of scarlet fever or any other infectious disease. The magistrate, after the order for the child's removal to an infectious hospital had been given, was very angry with Dr. CAYLEY for having recommended this. It is to be regretted that he would not hear Dr. CAYLEY'S explanation, and even declined to accept his statement that when he visited the child he was not aware of the controversy that was raging round its case. Whether Dr. CAYLEY was right or wrong, no one who knows him will for a moment hesitate to accept with implicit confidence his disclaimer of any intention to act disrespectfully to a magistrate placed in the difficult circumstances in which Mr. CURTIS BENNETT was placed here. The case is a very striking illustration of the difficulties of diagnosis. So few details are given that we cannot pretend to form an independent opinion. As to the question of peeling, there is the greatest variety of statement, Dr. CLARKE, perhaps, letting in a little light in a sentence, "There was a small rough patch on the chest, and if that spot was looked at it might have misled anyone."

Mr. CURTIS BENNETT—when finally trying the mother for disobedience to his order for removal—inclined to the opinion of the minority, and, believing that there were some substantial friends behind the poor woman with the mangle, inflicted a penalty of £10, and £2 2s. costs. Notice was, however, given of appeal. Mr. CURTIS BENNETT intimated his intention hereafter of acting on the certificate of the person in attendance. He should be the best judge of the law in this matter; but we venture to suggest that the very use of a magistrate is in cases where there is a conflict of testimony. It is for him to hear and weigh the testimony of both sides and then decide independently. As to the medical lessons of this case, they are on the surface. Where there is the least doubt, even in the case of a pauper, there should be delay and consultation; and if doubt still remains, the patient should have the benefit of the doubt, and not be sent into an infectious hospital. We cannot assign exact blame for so much independent and contrary action in this case; but it is to be regretted that Mr. COONEY and Dr. CLARKE did not, at an early stage, confer together to prevent so remarkable an instance as this case affords of professional difference. We have long foreseen the difficulties of the legislation that exposes the medical facts of homes and invades the liberty of families; but with a little patience and conference with medical brethren these difficulties can generally be overcome. It will be necessary for the law to provide means in doubtful cases of obtaining decisive testimony.

THE advent of Hospital Sunday brings us a publication of deep, not to say romantic, interest entitled "Fifty-two Years' Medical Work in Jerusalem." It reminds us that the parent city of Christianity itself witnessed the first attempt to establish medical missions in the world. This was made in 1824—a year of pestilence, destitution, and misery, such as even Jerusalem in its long and tragic history has rarely experienced. The success of the solitary medical missionary, Dr. DALTON, who then came to its relief, was such that the erection of a hospital for

the continuance of his work on a more extended scale approved itself to many in England. So in 1842, after much difficulty, a beginning was made with the present building. Its twelve beds were, four years later, supplemented by another twelve, and the hospital has since then undergone many internal improvements. Situated as it is in the Jewish quarter, within the city walls, in a locality which we would call decidedly insanitary, and surrounded by dirty, ill-drained streets, it required every favourable adjunct possible to minimise these grave disadvantages. The publication above referred to presents us with a series of illustrations from photographs of its outside aspect and its internal economy, and from these a vivid impression can be formed of the conditions under which the medical mission has prosecuted its fifty-two years of work. Representations of the *personnel* of the hospital and of its characteristic patients, male and female, are included in these pictures, and add an intensely human interest to the statistical report. A few facts culled from this will attest the widespread usefulness of the hospital. All sects and classes of the Jewish people, from far and near, many of them slaves to the darkest superstitions, find their way into it—Egypt and Syria, India in the far East and Morocco in the far West, sending their contingents; while immigrants from Russia, Poland, Austria, and Germany are from time to time represented. The Jews from these latter countries have more vigour of character than their eastern and southern co-religionists, and the missionaries find them more bitter opponents of Christianity; but all of the race, without distinction of locality or tradition, leave the hospital with gratitude for the benefits they have received, and favourably impressed with the civilisation to which they owe them. From 1860 to 1891, inclusive, there have been treated in the out-patient rooms 256,937 cases of disease and accident, 19,018 in-patients have been admitted, more than a quarter of a million visits have been paid to sick Jews in their own homes, and 884,132 prescriptions have been dispensed. The care and skill of the medical officers have been equal to the more difficult cases of confinement, wounds, fractures, and lesions or malformations requiring surgical intervention, so that the report can with justice put it on record that "the reputation of the hospital for the successful treatment of such cases is spread far and wide amongst the Jewish race." Our readers must turn to the report itself for the personal history—often romantically interesting—of the poor beneficiaries of the hospital. Its details will also convey some idea of the difficulties, religious and racial, with which the medico-missionary staff has had to struggle. For one remark, however, we must find room: "No forced proselytising is allowed." This is very reassuring and cannot fail to produce for the hospital a sympathy and support which are too often alienated by the paladins of aggressive Christianity. When conversions are made they are all the more sincere and permanent from having been unsolicited—from having been, in fact, brought about by free and unconstrained access to the teaching, by example as well as by precept—enjoyed by the inmates. In these circumstances, is it surprising that the resources of the hospital are annually becoming less equal to the demands made upon them, occasionally "fifteen individuals asking for one bed?" Jews, moreover, are now returning in great numbers to their own land; more than 40,000 are already in and around Jerusalem, the majority of them (according to the report), especially those from Russia and Yemen, being poor, friendless, and sickly. A new building is, therefore, urgently needed, and a site is available on the Society's sanatorium grounds, which, we learn, are very healthily situated, outside the city, in the midst of the new Jewish settlements. The plans, on the pavilion or detached-ward principle, have been designed by an able and accomplished architect, and are adapted to fulfil every sanitary condition required by a clinical institution; £8000 will cover the cost of it, and of that sum rather more than £5000 are already in hand. An appeal from the chief medical officer, following as it does upon such a record of noble work as we have been able to indicate, ought surely to find an effective response, at this season especially, on the recurrence of the new festival added to the Christian year. Civilisation owes incalculable benefits, even on the testimony of agnostics, to the movement that started and radiated from Jerusalem. Is it asking too much for some practical recognition of the fact by opportune support of a charity whose site is Jerusalem itself, and whose objects are the least favoured of the Jewish race?

Annotations.

"Ne quid nimis."

THE JUBILEE OF THE FELLOWSHIP OF THE ROYAL COLLEGE OF SURGEONS OF ENGLAND.

BEFORE the end of the year 1893 the Fellowship of the Royal College of Surgeons of England will have been in existence for fifty years. This circumstance would probably have escaped the attention of the Fellows generally, and it was a happy thought on the part of Mr. Willett, who remembered it, to have proposed at the Council meeting on March 10th last: "That it is desirable to celebrate in some suitable manner the fiftieth anniversary of the institution of the Fellowship of this College (the Charter creating this order being dated Sept. 14th, 1843), and that a committee be appointed to report on the best means of giving effect to this resolution." The proposal was seconded by Mr. Rivington, carried unanimously by the Council, and referred to the Committee on Advantages to Fellows. At the last meeting of the Council a report, dated May 30th, 1892, was received on this subject from the committee and adopted. The suggestions of the committee thus adopted by the Council were: "1. That the jubilee of the Fellowship be celebrated on Thursday, July 6th, 1893, the date of the annual meeting of Fellows for the election of members of the Council. 2. That a conversazione be held at the College on the previous evening, Wednesday, July 5th, 1893. Cards of invitation, admitting ladies, to be sent to the Fellows of the College. Members to be invited on applying for cards of invitation. 3. That an address be given by the President in the theatre of the College, at 1 P.M., on the Thursday before the opening of the ballot for the election of members of the Council. 4. That a Fellows' dinner be held on the Thursday evening at some convenient place." These arrangements must be carefully distinguished from the concessions granted by the Council to the Fellows which we have discussed in a

separate article, for they have no necessary connexion with bestowing any permanent privileges, and are merely of the nature of social amenities which might or might not be followed or accompanied by any constitutional *rapprochement* between the Council and the Fellows. It is the more necessary to make this distinction, because, whilst it has been determined by the Council that meetings of Fellows shall be summoned for consultative purposes separately from the Members, and that the Council shall invite the Fellows to meet it on July 7th next at 5 P.M., in the theatre of the College, or, in other words, that the separate meetings of Fellows shall be inaugurated on the day of the ensuing election, no mention whatever is made of any *bonâ fide* meeting of Fellows in July, 1893. On that day the Fellows present at the College at 1 P.M. will be addressed by the President, but apparently they are not expected, or to be permitted, to address the President in reply, or to move any kind of resolution other than, it may be presumed, a vote of thanks for his congratulatory remarks. This appears to us to be a decided omission on the part of the committee, for the most convenient day in the whole year for a meeting of Fellows in the theatre of the College would be the day of the annual election, and it would be a substantial concession to the Fellows if such a meeting were to be held every year, other meetings of Fellows being called by the Council when necessary, or in pursuance of a requisition signed by a sufficient number of Fellows. Of course the Council can at any time between the present date and July, 1893, rectify the omission, and perhaps it was thought desirable to hold the first meeting of Fellows experimentally on July 7th next, and to await the issue of events before finally committing the Council to a course which, to observers outside the Council, seems to be the most convenient and reasonable course that can possibly be adopted. We fancy that some members of the Council are strongly impressed with the idea that among the Fellows as well as the Members there are, politically, two classes, the sheep and the goats—the former timorous, deferential, subservient, and blindly following the official lead; the latter bold, self-contained, independent, and not amenable to disciplinary influence—and that it is absolutely necessary to adopt the most rigid precautions to repress their natural aggressiveness, as it cannot be expected that the goats will ever be converted into sheep. Another leading idea in the same minds seems to be an instinctive horror of the organisation known as the Association of Fellows. Probably the mention of the Association in the Council chamber has the same effect as waving a red flag before a bull; and the idea that the Association may derive some credit or advantage from the adoption of any particular step may be sufficient to induce these members of the Council to support measures which will prove least acceptable and advantageous to this particular organisation. If this is the keynote to any of the least comprehensible decisions of the Council it is to be regretted, for we fancy the Association will be content if the policy which it has been advocating is adopted by the Council, even though the credit for this result should be ascribed to the very members of the Council who have been the most active in opposing the concessions urged by the Association, with perseverance and success, upon the Council of the College.

THE VENICE SANITARY CONFERENCE.

THE renewal of the Venice Conference between representatives of Great Britain, France, and Austria at Paris has resulted in the signature of an amended Convention dealing with vessels arriving at Suez on board which cases of cholera have occurred within the preceding seven days. The new Convention has not yet been published, but it is generally understood that it embodies very considerable modifications of the conclusions arrived at in Venice, these modifications being in the direction of the views which have all along been entertained in this country. The changes are especially favourable to the better class of passenger vessels, which carry a medical man and means of disinfection; indeed, instead of a general disembarkation of passengers which was formerly held to be necessary should a case of cholera occur on board, the persons who are to be regarded as suspect are now limited to the actual attendants on the sick, and even these can remain on board for the limited term of observation unless it is desired that the vessel should proceed through the canal in quarantine as soon as the disinfection is completed. Compulsory landing is now confined to actual cholera patients, and it is explained that any real hindrance to commerce is hardly ever likely to occur under the new regulations; indeed, during the past seven years only two vessels out of many thousands would have been subjected to any of these restrictions on the ground that they were contaminated. In the event of cholera actually appearing at Suez the regulations are more stringent; but this will hardly be objected to, for Suez is an Egyptian port, and the Government of Egypt have the same right as any other Government to protect their ports from any actually prevailing disease that is brought into them. A strong hope is expressed that the European Powers who assented to the Venice Convention will agree to the modifications arrived at in Paris, so that discussions of many years' duration may at last come to a satisfactory termination.

LEPROSY.

IN the *Daily News* of June 13th appeared a communication from the Berlin correspondent of that paper, giving an account of an interview he had recently had with the English Red Cross nurse, Miss Kate Marsden. This lady had not long since returned from Siberia, where she had been engaged in gathering information concerning leprosy in that part of Russia. The Queen and the Princess of Wales had actively interested themselves in the object of Miss Marsden's journey, and had furnished her with letters of introduction to the Czarina. At St. Petersburg the nurse was very well received. The Czarina and Czarewitch between them subscribed a large sum of money to help to meet the cost of the nurse's journey and the Czarewitch "provided her with a letter to the various governors of the provinces through which she must pass, requesting them to grant her all the assistance in their power." Miss Marsden travelled to further Siberia and there, in the district of Yakutsk, began her inquiries and personal examination concerning leprosy. The disease is said to affect in that part of the Russian empire a tract of country which extends to some thousands of *versts*. "No provision whatever is made for the care of the sufferers." Whenever a person is ascertained to be a leper, he is "driven into the forests and never allowed to come again into contact with his fellow creatures." The lepers herd together in huts, "half built, half excavated from the ground." There these poor creatures exist with a few old sheepskins for their only clothing; and for food they have "small quantities of rotten fish, and the bark of trees,"—and that is all! The rotten fish is left near the leper huts by the relatives of these miserable outcasts. From this fact we may perhaps see reason to doubt the accuracy of the statement quoted above to the effect that these Siberian lepers are not allowed to come into contact with the non-leprous population. Miss Marsden is reported by our contemporary to have said that these lepers were "of all ages and in all stages of disease, but in many instances their condition was such that they had lost all semblance of humanity." These leper colonies are subject

to no kind of supervision; and their inhabitants live in a condition of indescribable filth and vice. Miss Marsden has succeeded in forming a committee at Yakutsk, consisting of the governor of the district, two priests, and some of the leading inhabitants of the neighbourhood. This committee proposes to take steps to obtain all that is needed to ensure the establishing of a leper colony in the district and to place the lepers there under proper and kind supervision. Miss Marsden proposes to return to Yakutsk, to help in this good work. On her return from Siberia her report created so much interest in Moscow that a "Russian princess, in one of the convents there, with five Russian Red Cross sisters, volunteered for service in the leprosy-stricken district." It may not be out of place to remark that we have our own lepers in India and elsewhere. His Royal Highness the Prince of Wales did excellent service a few years ago in directing public attention to England's responsibilities in this direction. As a consequence of the Prince's action, Commissioners (three of their number were sent from England) have examined and reported upon leprosy and lepers, as the disease and its victims are seen in British India. This report, not quite complete, but very nearly so, was brought to London last January, and, we understand, has itself been reported upon by a select committee appointed for that purpose by the National Leprosy Fund Committee and by the two Royal Colleges of Physicians and Surgeons. We venture to express a hope that this good work, so energetically commenced by the Prince of Wales, will be as vigorously pushed on in the direction of some practical outcome. From America, from many of our own colonies, and from very many other parts of the world, we hear of attention being turned to the subject of leprosy, because, rightly or wrongly, people begin to fear that this dreadful disease is spreading—no doubt slowly—among people who were previously free from leprosy. It is very certain that if the disease is to be stamped out at all, it is now, and not in the uncertain future, that a determined effort in this direction should be promptly made. England has hitherto been often the first among the nations to lead the way in sanitary progress. We think it would be well worthy of her were she to take prompt and decided measures for ensuring the proper and kind treatment and control of the leper populations, which are only too numerous among the many races who are the subjects of the Queen.

LORD WANTAGE'S COMMITTEE.

THE debate on the report of Lord Wantage's Committee took place on the 10th inst., on the return of Mr. Stanhope to parliamentary work. We congratulate the War Minister on his recovery and reappearance in the House. The result of the debate was exactly such as might have been anticipated. The report of the committee, the voluminous evidence on which it was founded, and the conflicting opinions of the various speakers who took part in the debate, all served to indicate that the subject was beset with difficulties; and that if there was any general agreement as to the necessity of something being done, there was practically none as to what should be done. There is complete unanimity as to the excellent quality of the British army in India and abroad. All the contention is about our battalions at home and the quality and sufficiency of the recruits by which our army at home and abroad has to be maintained. Even had there been a strongly expressed general agreement as to the nature of the measures required, the fact of our being upon the eve of a general election would have been a sufficient reason for a War Minister's refusal to do anything at the present time. It must be confessed that Mr. Stanhope had no great difficulty in making out a case for delay and further consideration. He is absolutely sceptical as to the probability of improving the quality of our recruits by an increased pay. We get youths now, and men of over twenty years of age would not be attracted to the army in any large numbers by a small increase of pay to the individual, which would, however, in the aggregate amount to a very large sum. It must be borne in mind, too, that there is no going back. Once any increase of pay has been introduced, whether it succeed or fails of its object, it can never be decreased again. We think, however, that sooner or later it will have to be done as an act of equitable and fair dealing with the soldier; meanwhile, there is one source of unpopularity and irritation which should be removed, and that is the stoppages now imposed upon the soldier. It is contended that instead of men we are getting boy soldiers and maintaining nursery battalions. If so, why do we not go a step further, and imitate the navy in training up boys for subsequent service as soldiers? It has been recommended by the Duke of Cambridge and Lord Roberts is strongly in favour of that measure. There are a number of small reforms which might be effected. We are glad to see that the lot of non-commissioned officers is to be made more attractive—a highly desirable measure. If the nation cannot pay in one way it should in another, and we are of opinion, although many may not agree with us in this, that the day has come for increasing the number of commissions to be given to intelligent and steady men for gallantry and good work as soldiers. There should be a sufficient stimulus in this direction for a young fellow of ambition to feel that all was open and possible to him in a military career. While we consider that there are still many small and irksome regulations and customs in the army, as affecting the rank and file, which might be done away with and the removal of which would tend to lessen the differences between civil and military life without any injury to discipline, no one can shut his eyes to the fact that the soldier's condition has been enormously improved of late years, and it is but justice to Mr. Stanhope to declare that he has been second to none in his efforts in this respect during his turn of duty as War Minister. With regard to Lord Roberts and the Wantage Committee, we think it is to be much regretted that the views expressed by the Commander-in-Chief in India, as set forth in *The Times*, were not embodied with the published evidence in the form of an appendix. The position and rank of Lord Roberts, as well as his experience and reputation, give him every title to be heard; and the evident care and thoughtfulness with which his views have been formulated, required that they should be put on record and thoroughly considered, as they will surely have to be when the subject again comes up for deliberation and debate in a new Parliament.

HORRORS OF THE HIGHWAY.

"THE nineteenth century omelette," says Mr. Frederic Harrison, "entails a terrible smashing of eggs," as the shortened lives of our beasts of burden in great cities too painfully testify. The omnibus traffic, in London especially, is becoming more and more of a harrowing sight, its sacrifice of horseflesh adding another to the many trials which the humanely minded among us have to undergo as we daily thread the streets. The strain imposed on these poor animals is sometimes appalling to witness, and hardly a week passes without numbers of them sinking under their load and dying where they fall. Twice last week, between Sloane-street and Piccadilly, a horse might have been seen to succumb on the incline and after a few convulsive heart-heaves to breathe its last. In each instance it was a case of the *cor ruptum* of Boerhaave, not to be wondered at when the severe and continuous effort that preceded it is considered. The animals are as powerful as can be procured; they come mostly from France, specially imported for their strength and endurance. But the omnibus which

they are made to drag in pairs is at least a ton in weight before a single passenger enters it, and when it is full—fourteen outside and twelve inside, often with heavy packages in addition, the driver and conductor bringing the total up to twenty-eight—some notion of the exertion required to pull it at a brisk pace uphill may be imagined. Nor is this all. The incessant stoppages imposed by passengers who get up or down along the route, when half a minute more might bring them to a point where the vehicle pauses by regulation, add enormously to the strain exacted from the long-suffering animals. At the briefest of intervals they have to put on a fresh spurt, often on a slippery wood pavement, simply because some thoughtless "fare"—possibly on his or her way to an anti-vivisection meeting—will not take the trouble to wait till the 'bus "stops by nature." True, the hours during which the horses are made to do this work are few and far between; but that, even with this provision, the work itself is cruelly in excess of their powers is evident from the fact that the strongest of them rarely last more than two years. They are well fed and comfortably stalled; but not even such favourable conditions can prolong their lives to the normal term. The Society for the Prevention of Cruelty to Animals has just held its sixty-eighth meeting, but amid much good work it has effected for our "dumb servants" we miss in its report an adequate appreciation of the sacrifice of horse-life to the omnibus Juggernaut. It might surely spare a little of the time and energy it expends on painless vivisection to intervene in favour of our over-wrought draught cattle, and contribute in some degree to minimise the "horrors of the highway."

THE TREATMENT OF HILL DIARRHŒA.

THE May number of the *Indian Medical Gazette* contains a valuable paper on this subject by Surgeon Lieut.-Colonel A. Crombie, M.D., the surgeon superintendent of the General Hospital, Calcutta. He says that every cold winter he sees a number of patients who give the history of having suffered from hill diarrhœa during the previous summer; but who, in detailing the treatment which they have received, do not mention the remedies which have been found to be very efficacious in his own experience and in that of others. Without going minutely into the causes of hill diarrhœa it may suffice to say that it is a disease liable to occur at hill stations where the elevation is 6000 feet or more above the sea level. One of its peculiarities is that, in recent cases, the diarrhœa is confined to one particular portion of the day, beginning between 3 and 5 o'clock in the morning and lasting until 9 A.M. It is a disease of adults; children under twelve years of age being very rarely affected. Many persons going from the plains of India on reaching an elevation of 6000 feet immediately begin to suffer from symptoms of dyspepsia and flatulent distension of the stomach and intestinal canal. These symptoms may exist with or without diarrhœa. In the former case the motions are very light in colour, like whitewash, liquid, and frothy. On the approach of monsoon influences the hill diarrhœa becomes an epidemic. In July, 1880, at least one-third of the population of Simla suffered from it; and had the epidemic been one of cholera instead, with its attendant mortality, it is questionable whether the survivors would have been sufficiently numerous to have buried the dead. Dr. Crombie considers that it is not a true diarrhœa, but an indigestion due to an imperfect secretion of the digestive ferments generally, including those of the bowel. The treatment consequently consists in supplying the deficiency in the secretion of these ferments and in the administration of intestinal antiseptics to check the abnormal fermentation set up by the absence of bile and other secretions in the small intestine. The line of treatment indicated is threefold. Living at high altitudes being the principal cause of the disease, all that is necessary for its cure is a return to a lower level. In early cases this alone is sufficient to put a stop to the symptoms in twenty-four hours. In the second place, the epidemic being closely related to the monsoon influences, those liable to hill diarrhœa should leave the hills at the beginning of the rains, as is now done at Darjeeling every year. The third measure consists in the administration of pepsine, the extreme usefulness of which was accidentally discovered by Dr. John Anderson and Dr. Crombie in 1881, and in the use of perchloride of mercury, the value of which in tropical diarrhœa was recognised and pointed out by Surgeons Macpherson and Barry. Peptonised milk, or ten or twelve grains of pepsine or ingluvin two hours after food, is generally sufficient to relieve the symptoms. The solution of the perchloride of mercury is best administered ten or fifteen minutes before each meal. Dr. Crombie appends the notes of various cases in illustration of the foregoing statements.

SCARLET FEVER AT WATFORD AND BUSHEY.

A CONSIDERABLE prevalence of scarlet fever is in progress in and about Watford, and the isolation hospitals being full, the rural sanitary authority have taken some cottages at Bushey to serve as a hospital. This action has evoked strong condemnation on the part of some residents in Bushey, and this the more because the cottages are alleged to be without any open space in which patients can take exercise, and because they are in consequence without any needed space between the infected buildings and neighbouring property and roads. The truth is that the time has passed for suddenly improvised hospitals, and it is to be hoped that the Watford urban and rural authorities will seek a proper site and erect on it a proper hospital, which shall serve ordinary purposes and admit of temporary extension in case of sudden emergencies.

COPPERED GREEN PEAS.

ANOTHER attempt to prosecute a vendor for having sold preserved peas to which copper sulphate had been added has failed. The peas were certified by the analyst of Liverpool city to contain copper equivalent to one grain of copper sulphate per pound. The stipendiary magistrate decided that the Act of Parliament did not prohibit anyone from using a substance of this kind to preserve the natural colours of a product if it could be done harmlessly. He did not think it was a case of fraud; and though copper had evidently been used, it was in such a form as not to be injurious. He therefore dismissed the case; but he wished not to be considered to be laying down any general maxim on the question at large. As happened in the recent Glasgow case, the opinions of professional experts as to the innocuousness of copper compounds in the form and quantity present in peas so preserved differed widely. Some held that the copper salt being converted into an albuminate was non-injurious, because insoluble. The research of Drs. Charteris and Snodgrass[1] would indicate, however, the contrary to be the case, for in their experiments they showed that albuminate of copper was rendered distinctly soluble by the digestive process. It is quite evident that until it has been decided that copper salts used in this manner are really injurious to health, no case under the present wording of the act can be established. The greening of peas by this means is of course an unnatural process, and copper is not a normal ingredient of vegetables. Copper compounds are unquestionably irritant poisons, and it is a significant fact, as we have pointed out before, that though the sulphate is used merely to impart a fresh appearance

[1] THE LANCET, Jan. 23rd, 1892, p. 190.

to the peas, the French Government have prohibited its use in this way so far as home trade is concerned, although they permit the adoption of the *reverdissage* process where the peas are intended for export purposes only. Surely it is high time that the question as to whether copper in peas is injurious or not should be once for all decided. Then taking proceedings will not be a farce, and much of the valuable time and labour which are at present lost by the magistrate, the analyst, and others engaged in such cases will be saved.

EFFECTS OF AN OVERDOSE OF CODEINE.

AN overdose of codeine is not a common occurrence, and therefore Dr. Mettenheimer, who has met with such a case, has reported it. An elderly lady consulted him for a slight catarrhal, non-febrile affection which, however, gave rise to a troublesome, spasmodic form of cough. For this he prescribed 0·03 gramme (about half a grain) of phosphate of codeine, in the form of a pill, to be taken every three hours. The patient, however, swallowed four of these pills, or about a grain and a half of the codeine salt, at once. Shortly afterwards she vomited twice and suffered from abdominal pain. There was, too, suppression of urine and she felt very ill, being sleepy but unable to go to sleep. The next day she was still drowsy and had no appetite but there was no return of the sickness. She was then seen by Dr. Mettenheimer, who found the pupils contracted, the pulse hard and quick, and the respiration accelerated. The cough had entirely disappeared. The contracted state of the pupils, the loss of appetite, and the abdominal pain persisted for several days. No urine was passed until thirty-six hours after the pills were taken. On the third day the drowsiness had passed away. The cough did not return for a week and when it did it was comparatively slight. This case seems to show that codeine in large doses has a very similar effect to opium and that it may prove a most efficient remedy for some kinds of cough. As the tongue remained clean it would appear that the vomiting was due to cerebral, rather than to gastric, irritation.

CONGENITAL DILATATION OF THE COLON.

A REMARKABLE case of defective formation of the colon, leading to habitual constipation and an enormous accumulation of the contents of the bowel, is described by Dr. Formad in the June issue of the *University Medical Magazine* (Philadelphia). The condition is one of great rarity, and is the converse of that described in these columns last week by Mr. Dodd (p. 1299). The subject of this malformation was a male twenty-nine years of age, who died suddenly when at stool. From his infancy his abdomen had been of large size, and he was subject to attacks of constipation often lasting for some days. Although from the age of sixteen he was engaged in work (first at a foundry and then as a labourer at an oil refinery), he continued to be subject to constipation, sometimes lasting for a month at a time, and his abdomen increased in size, so that at twenty years of age he was exhibited in a "museum" as a "freak," and was known as the "Wind-bag" or "Balloon-man." "It is said," writes Dr. Formad, "that the circumference of his body at this time was equal to his height, and that he was able to diminish or increase the circumference of his abdomen and chest at will to the extent of fourteen inches." He was a great eater and occasionally intemperate. For a short time he became an inmate of a hospital, where, after an examination under ether, it was concluded that the case was one of simple enlargement of the colon. Shortly after leaving the hospital he died suddenly as stated. After death the circumference of the abdomen measured 7 ft. 2½ in., and that of the chest below the nipple 5 ft. from the eversion and straightening of the ribs; whilst the height of the body was 5 ft. 7½ in. There was general emaciation. The diaphragm was pushed up by the distended abdominal viscera to the level of the third intercostal space anteriorly and the fifth dorsal vertebra posteriorly. The heart occupied a horizontal position to the axis of the body, its apex being about the second left interspace. The colon was of enormous dimensions, appearing to be about ten times wider than normal. Its total length was about 8 ft. 4 in., and the circumference of its several portions was as follows: Cæcum, 10 in.; ascending colon, 15 in.; transverse, 15 in. to 30 in.; descending, 24 in. to 25 in.; sigmoid, 25 in. to 27 in.; thus gradually increasing in width from the cæcum onwards, its widest part being in the transverse colon. There was no kinking or mechanical obstruction of any sort. The contents of this enormously overgrown gut consisted of semi-fluid fæcal matter of dark brown tint, weighing 40 lb. and presenting no abnormality either on microscopical or chemical examination. The rectum as well as the whole of the small intestines were perfectly normal in size. The coats of the colon were not unduly thick, but there was a marked absence of sacculation and of epiploic appendages. There was some thickening of the coats of the stomach, but no notable changes in the other viscera. Dr. Formad enters into the literature of the subject and concludes that in such cases there is primarily a congenital defect in the formation of the muscular coat of the bowel which favours fæcal accumulation; and he thinks it very probable that the innervation of the colon is also at fault. One remarkable feature about the case is the tolerance established by the long-lasting constipation. The man does not appear to have suffered from symptoms attributable to fæcal absorption, nor was there any of that ulceration of the mucous membrane so common in cases of accumulation from chronic obstructive disease.

THE WATER-SUPPLY OF BUDA-PESTH.

A FEW days ago his Majesty the Emperor Francis Joseph proclaimed the town of Buda-Pesth the second capital of the Austro-Hungarian empire. Henceforth Buda-Pesth will rank side by side with Vienna. This completes the full recognition of the autonomy of the Hungarian kingdom within the Austrian empire. To the sanitary reformer the town of Buda-Pesth is of especial interest, because it is in the capital of Hungary where the next International Congress of Hygiene will meet. It is to be hoped, however, that between this and then a proper water-supply will have been obtained. The insufficient quantity of pure water at the disposal of the inhabitants of Buda-Pesth is an old and yet urgent grievance. The difficulty would probably have been already overcome but for the divided opinion of the local authorities. Temporary waterworks were constructed on the borders of the Danube in 1867 and have since been enlarged; but they do not suffice, and in many parts of the town the unfiltered water of the Danube is consumed. This water receives not only the contents of the sewers of the town but also the drainage of several hospitals. A project was started for obtaining water from the subterranean water shed of the Kaposztasmegyer district which is only about seven or eight miles distant from the capital. The soil there is composed of gravel, some thirty feet deep, resting between two layers of clay. This constitutes a natural filtering bed. The engineer of the town, however, doubts whether the supply from this source will always be sufficiently abundant. Herr Salback, engineer, from Dresden, was called upon to arbitrate in the dispute, and gave a verdict in favour of the project. The water from this source is described as varying in temperature from 10° to 17° C., and as containing from 232 to 304 inoffensive bacteria per cubic

centimetre. It was proposed to dig some thirty wells at about 200 yards from each other, and a yield of 235,000 cubic metres of water per day, it is thought, could be obtained. For Pesth half this amount would suffice, while Bude, the other half of the town, being on the other side of the Danube, has a separate supply. The intake seems somewhat nearer to Pesth, which is the more modern part of these joint towns, and it is here that an extraordinary increase of population is taking place. Strict precautions will be necessary to protect these wells.

THE SPREAD OF CHOLERA TOWARDS EUROPE.

THERE can be but little doubt that cholera is spreading in Persia in a direction and on a scale that is likely to constitute a grave danger to Europe. In the district of Meshed the deaths are estimated at from 150 to several hundreds a day, and the approach of the disease to the Russian frontier is looked upon with serious apprehension. The Russian Government have appointed a Commission, and places of observation have now been established at Baku and Astara for the Black Sea and Caspian Sea, besides a number of stations along the frontier; and by these routes alone will passengers and goods be allowed to enter Russia. This is the old route by which cholera has travelled from east to west in former years, and there is no reason to doubt that the sanitary state of many places in Southern Russia is but little different from that which prevailed in former years when cholera and the so-called Astrakan plague were so rife amongst the inhabitants. The trade routes from Persia into Europe in the neighbourhood of the Caspian and the Black Seas are especially dangerous in the case of a disease which is now shown on incontestable evidence to spread, in Europe at least, along the lines of human traffic and intercommunication. Hence other countries in Europe besides Russia should be prepared for any emergency that may arise, and our own sanitary authorities will not fail for work if they seek to remove in advance all conditions in their districts which are favourable to the diffusion of imported cholera.

THE COUNCIL OF THE ROYAL MEDICAL AND CHIRURGICAL SOCIETY AND THE ASSOCIATION OF FELLOWS.

OUR attention has been called by the honorary secretary of the Association of Fellows, Mr. H. Percy Dunn, to a decision of the Council of the Royal Medical and Chirurgical Society. The Association of Fellows of the College of Surgeons of England, which was formed to advance the social, professional, academical, and constitutional interests of the Fellows of the College, which numbers in its ranks about one-fourth of the constituency of the Fellows of the College, and comprises several present and past members of the Council of the Royal College of Surgeons of England, has been in the habit of holding its general meetings sometimes at the rooms of the Royal Medical and Chirurgical Society, 20, Hanover-square, sometimes at those of the Medical Society in Chandos-street, and sometimes elsewhere. As several members of the committee belong to the Royal Medical and Chirurgical Society, and have held high positions in that Society, the committee has given a preference to the rooms of the Society, deeming that it would be an advantage to the Society in its new quarters to pay for the hire of one of its rooms. In the ordinary course, the committee instructed the honorary secretary this year to apply to the Council for a room in which to hold its annual meeting on June 23rd. To the surprise of the committee the Council has sent a letter to the honorary secretary of the Association informing him that the use of the room cannot be afforded to the Association on the ground that the Association is a political organisation, as if the combination of Fellows of the College for the purpose of securing due professional consideration for the order of Fellows, the most cultivated section of the College constituency, were a high crime and misdemeanour, and not in every way a constitutional and proper organisation. If it be alleged that the Society's premises should only be used by associations whose primary object is the advancement of science, it may be answered that to draw closely the bonds of professional union between the Fellows of the College and its Council—the fundamental object of the Association of Fellows—must be conducive in every way to the prosperity of the College of Surgeons, not merely as a so-called political but as a scientific body; and all influences which tend to dissociate the Council from the Fellows of the College must also tend to bring down the College from its high position as a scientific institution.

A FATAL FLY STING.

THE sad accident which has deprived Mr. Balfour of his secretary, Mr. Frank J. Woods, is happily one of rare occurrence, although the conditions for it are only too prevalent. Mr. Woods died, after about ten days' illness, from erysipelas and septicæmia supervening on a sting on the lip inflicted by a gadfly. It was conjectured, and doubtless with truth, that the insect must have been in contact with a diseased animal; but the transference of putrescent material from any source may have been made by the gadfly to the wound it inflicted on a highly vascular part. The only thing to be done under such circumstances is to subject the wounded part to powerful suction; and in the case of a bite on the lip this may be done fairly effectively by the individual himself, for only in this way is it at all possible to extract the poisonous material. Yet this measure may fail to effect its object, since the facilities for rapid absorption are so great and the point of entrance of the poison so minute.

"CURES" FOR INEBRIETY.

THE gold treatment for alcoholism and the morphine habit, which has been so largely advertised in America, is now about to be introduced into this country. To-day (Friday) a meeting is to be held at the Westminster Town Hall, under the auspices of the Church of England Temperance Society and the chairmanship of the Right Rev. Bishop Barry, at which information will be given respecting this treatment and its results in 60,000 cases. We hope that this information will go further than a mere reference to so many alleged cures. The drug used by Dr. Keeley is stated to be a double chloride of gold, but beyond this nothing is known. The formula, method of use, and dosage are kept quite secret. For twelve years Dr. Keeley is reported as having pursued this treatment at Dwight, Illinois, U.S.A., and in that time 60,000 persons are said to have been treated at the parent home and at the branches established in various American States, with only 5 per cent. of relapses. In one month more than 1000 persons were treated at Dwight alone. We are informed that "the treatment is tonic and healthy tissue making, and no individual has ever received injury from its use. It does not supplant moral influences, but uses them to develop, educate, and strengthen the moral sense when the physical causes of disease have been removed." These are "good worts," and we expect to see them soon in a prospectus issued by some company-promoting syndicate. Truly the methods adopted by some American physicians astound us. The running of a secret cure for one's personal profit would in this country ensure the erasure

of the inventor's name from the roll of any college of physicians or surgeons, university or medical society with which he might be connected. Professional usage and etiquette demand that any method of treatment deemed useful in any class of diseases should be made the common property of the profession, should be as available for the welfare of the poor as of the rich, and should be openly and without reserve tested and proved at some of our numerous public institutions. This modern American plan, which must give so great offence to the vast majority of medical men in the United States, whom we know to be as scrupulously tenacious of the laws of professional etiquette as our own physicians and surgeons, puts a method of treatment—good, bad, or indifferent, we know not, for we have nothing to do with secret remedies and cures—on the same line with the latest patent pill. Professional decency, honour, and etiquette are alike passed by as unimportant. We need say no more, except to warn physicians and patients against making use of a treatment of the detail of which nothing is known and which apparently there is no intention of submitting to the critical and open judgment of the profession. We hope that a society like the Church of England Temperance Society will not lend the weight of its influence to such unprofessional methods. Its zeal for temperance should not overrun discretion, and tempt it into a false position in regard to the right and proper methods of professional procedure. There are other American physicians who claim results equal to Dr. Keeley's (whether rightly or wrongly we know not), and we have seen a letter from one who offers to come to England and "operate" side by side with Dr. Keeley; so that we may soon expect to have other aspirants to the fame and fortune which are sure to attend, for a slight period at least, the introduction of the latest American medical "boom."

THE HOSPITAL SUNDAY COLLECTION.

THE collection which is to be made to-morrow in the various places of worship throughout the metropolis will, without a doubt, result in a munificent tribute, to be dedicated to the service of the sick poor; but although we entertain no anxiety upon that point, we do strongly feel the necessity for a great effort on the part of all who are interested in this good work, if the present year is not to suffer by comparison with some that are past. Last year the collection reached an aggregate considerably in excess of any that had been realised before that date, but this eminently satisfactory result was attained by the aid of some very large gifts, such as cannot be counted upon for renewal on the present occasion. Under this point of view, therefore, the success of 1891 argues rather that it will be difficult than that it will be easy in the present year to secure a collection with which the contributors and the Council of the Fund may be content. Indeed, were it not for the continual growth of the metropolis—a subject which we have sufficiently illustrated in our Special Supplement published last week—it would be unreasonable to expect that the collection should continue from year to year to increase. Still, while London continues to expand and thicken on the ground at the rate of growth which at present obtains within the metropolitan area, it would be supine, indeed, on the part of those who are charged with the conduct of this undertaking if they were content to allow any year to mark a culminating point in the history of the collection. Year by year the wealth and magnitude of our vast city are augmented in a measure which the imagination fails to apprehend, and if the charity of the metropolis does not expand in a commensurate proportion some one must be seriously to blame. The meeting which assembles at the Mansion House to-day (Friday), and which will be reported in our second edition, will, we hope, have the effect of quickening the widespread interest which already exists among a large number of supporters of the Fund beyond those who will actually assemble to listen to the address of Mr. Egmont Hake and the appeals of other well-known speakers. Important as are such methods of evoking enthusiasm, the main reliance of the hospitals and dispensaries must be placed upon the spontaneous efforts of those ministers of religion and others whose advocacy of their cause in public and in private has effected so large a result in the past. Among these advocates of the charity we are glad to know that we may reckon the great body of our professional brethren in London and its neighbourhood. Their influence has always been cast in this scale, and it will not now be withheld. We trust they will on this occasion be not less successful than in the past.

POISONING BY STRYCHNINE.

WITHIN the last few years strychnine has been used somewhat frequently for the purposes both of suicide and of homicide; while within the last few weeks what would appear to be a series of cases of poisoning by this alkaloid has occurred. As this matter is still *sub judice*, we withhold further comment, and pass on to the general consideration of the subject, which deserves the very gravest consideration of the Legislature, the medical profession, vendors of poison, and the general public. In the first place, strychnine is much too easily procurable in the shape of vermin killer powders. These have been distinguished by different names, but all are equally dangerous, a threepenny packet containing more than a grain of this deadly alkaloid. It is true that these powders are sold according to the regulations of the Act of Parliament, names and addresses being required, as well as entry and signing in the book kept for that purpose. It is equally true that all these may be false. Again, while it is required that the poison must be mixed with some colouring matter, this latter has in the case of some powders been found to have the dangerous faculty of being destroyed by the gastric juice. The sale of strychnine or any of its compounds under these circumstances ought to be absolutely forbidden. Rats and mice, cockroaches, and beetles can be caught in traps and destroyed without danger to anyone. Whether the sale of these powders be profitable or not we do not know; but until some additional restriction has been placed upon their sale, we would urge upon all respectable chemists and druggists the great desirability of not selling these powders except to customers whom they know well, and who are not likely to make an improper use of them. Passing on to members of the medical profession, we would remark that while the symptoms of strychnine poisoning are well known, they vary very much according to the surrounding circumstances. When the dose has been large the tetanic spasms will be well marked, but when a minimum fatal dose has been given these will be modified into a species of convulsions which may be regarded as unconnected with poison. Hence the importance of not only observing the symptoms of any sudden attack of convulsions very carefully, but also of duly weighing all the surrounding circumstances, the previous taking of food or medicine, the absence of any former similar attack, and the appearance and manner of those around. Some years ago a man who went in the morning to his work in his usual health, who had never had a day's illness, came home to his dinner and died suddenly in convulsions. A surgeon called in did not see him until after his death, and gave a certificate of death from sunstroke. It was the third death in the same family within a very short period under very similar circumstances, and all three, father and two children, had been secretly insured. There can be no doubt that strychnine had been given and had

caused death, but it could not be detected in the exhumed bodies. Moreover, the post-mortem appearances will vary much according to the dose given. When this is large and the body is seen soon after death, the opisthotonus, the rapid access of what resembles rigor mortis, but which is really the action of the poison, will be evident to the eye. But when the dose has been small and decomposition has commenced, the same appearances, though not absent, will be very much modified. Again, in a more recent case, the "mouse powder" used by the poisoner contained both arsenic and strychnine, which circumstance tended to mask both the symptoms and the post-mortem appearances. These points are all well worthy of consideration. In the perusal of former cases of poisoning nothing can be more unfortunate than the frequency with which circumstances, obviously suspicious when viewed in the light thrown upon them by subsequent events, have been passed over by the medical attendant, who has been too apt to ignore the possibility of criminal poisoning. Nothing is more calculated to excite public distrust than the burial of bodies with certificates of deaths from natural causes, to be followed by their exhumation shortly afterwards, and the discovery of poison in the viscera. Medical jurisprudence and toxicology are not branches of the profession to be studied at the medical school when a student, and to be dropped after the examinations have been passed. They should be studied carefully all through a medical practitioner's life whenever and wherever opportunity affords, and should be regarded as an important item of medical practice, which may be encountered at any time and under any circumstances.

THE PROGRESS OF SMALL-POX.

SMALL-POX is still an element of considerable danger to the public health of England. During the four weeks ending June 4th last there were 125 attacks in the metropolis, 11 in Liverpool, between 20 and 30 in Dewsbury, 12 in Wakefield, 5 in Sheffield, 8 in Halifax, and 15 in the neighbourhood of Dartford, which is not far from the small-pox establishment of the Metropolitan Asylums Board, besides a number of other more isolated groups of attacks. Never before, in the sanitary history of this country, have early isolation, vaccination, and disinfection been so practicable as they have become since the passing of the Act for the compulsory notification of infectious diseases; otherwise we should look with much concern to a recrudescence during the ensuing winter of an infection which has established itself in so many centres of population.

HOURS OF RAILWAY SERVANTS.

THE report of the Select Committee of the House of Commons appointed to inquire into the hours of labour worked by railway servants deals in a manner which will, we hope, secure general approval with the very difficult questions brought under discussion. The reality of the grievance from which some classes of railway servants suffer in this respect has long been quite beyond dispute; and it is, moreover, one from which the public suffer hardly less than the immediately aggrieved parties. The frightful risk which the travelling public incur through the entrusting of the safety of trains to the hands of engine-drivers and signalmen exhausted by overwork needs no demonstration. And on this ground alone it may well be legitimate enough that the Legislature should intervene and put a restriction upon the conditions of railway labour even when such restrictions may not be demanded or even desired by either the masters or the men. But legislation of this kind is not to be desired upon its own account, and recourse to it should only be had for the purpose of attaining very definite and very sufficient objects. The object, and the only proper object in this case, is the public security, liable to be seriously imperilled by the employment of inefficient workmen in the working of the railways. The committee have very properly, as we think, refused to consider collateral objects, and directed their endeavours to the securing of this one alone. It was natural that some witnesses should make the occasion one for advocating a legally restricted day with the ulterior purpose of securing legally defined overtime and overtime pay. But their views did not impress the committee, and the only legislation which is recommended by the report is such as would leave both parties free to make any terms as to wages upon which they could agree. It is furthermore satisfactory to find that the committee have arrived at a conclusion that very little in the way of legislation is necessary to secure the object which they have had in view. They point out that great improvements have already been effected under the pressure of public opinion merely, and infer that much more, and probably all that can be desired, might be effected if full publicity were secured by means of returns, and, in case of accident, by formal inquiries. In this way they think that the companies might be coerced effectively, but at the same time in such a way as would leave their responsibility for the due administration of their business wholly unimpaired. Should the event falsify their expectations, they would be prepared to give to the Board of Trade or the Railway Commissioners power to call upon any company shown to be in default to formulate and enforce a time-table which should be approved as satisfactory by the public authority exercising the proposed jurisdiction, observance of the regulations being enforced by suitable penalties. The report appears to us to be eminently judicious and impartial, and one which, in much of the legislation respecting industrial pursuits which it is only reasonable to expect in the near future, may safely and usefully be accepted as a model and a repertory of sound sense.

THE PANCREAS AND DIABETES.

PROFESSOR SEEGEN, one of the chief authorities upon diabetes in its physiological as well as its clinical aspects, recently read a paper before the Medical Society of Vienna, in reference more particularly to the recent researches upon extirpation of the pancreas and diabetes, and having regard to Lépine's explanation that the pancreas produces a glycolytic ferment, the lack of which causes an accumulation of sugar in the blood. Professor Seegen says that, granting that the blood of a diabetic patient has less glycolytic action than that of a healthy subject, it is assuming a great deal to hold that this proves the presence in health of a special glycolytic ferment manufactured by the pancreas. By careful experiments he finds that the normal sugar disappears most rapidly from freshly drawn blood when the latter is maintained at a high temperature (39° C.), whilst a current of air is being passed through it. That this is not due to the action of living protoplasm he shows by the addition of chloroform (to kill the protoplasm), which makes hardly any difference in the glycolytic action. Moreover, since the glycolysis goes on more actively after blood has been drawn for some time than at first, Professor Seegen infers that the ferment is produced by some change in the blood outside the body rather than by the pancreas. He does not discuss the question of the diminution of this ferment in the blood of diabetics (men or animals), but refers to Minkowski, who found the sugar rapidly diminish in blood from a diabetic dog. Professor Seegen suggests that diabetic blood may contain something antagonistic to glycolysis, so that even if

Lépine's experiments are correct, they do not necessarily point to a diminution of the ferment in that disease. He holds, therefore, that the explanation of "pancreatic diabetes" has still to be found. Minkowski showed that if a portion of the pancreas (in animals from which it had been extirpated) were transplanted beneath the peritoneum, the diabetic condition is averted, only to appear when the transplanted organ is removed by a further operation. This, as Professor Seegen points out, is comparable with the effect of experiments in thyroid grafting by Eiselsberg, who found that tetany did not occur until the transplanted organ had been excised by a second operation. Morbid anatomy has, however, abundantly shown that in cases of diabetes the pancreas may be quite normal, so that, in fine, upon this question Professor Seegen agrees—and, indeed, has always maintained—that in cases of diabetes there is diminished glycolytic action in the body; but he denies that Lépine has proved this to be due to disease of the pancreas causing a diminished production of a hypothetical ferment.

TUBERCULOUS CATTLE IN LONDON.

THERE is some satisfaction in learning from the daily papers that the prevalence of tuberculosis among cattle in and around London is causing serious anxiety to the Government authorities, and that special inquiry is being made as to the abnormally large number of cases reported during the past few weeks. For more than half a century the disease has been causing great havoc not only in and around London, but throughout the United Kingdom, and the loss it has occasioned is incalculable; but we are not aware that it is much more prevalent now than at any time during the last twenty years. It is certainly attracting more attention, however, thanks to the persistent efforts of sanitarians and others, who understand what it is and the dangers that attend it, to awaken the authorities to their duty. Agricultural interests, no less than the public health, demand that the malady be dealt with energetically, and that special measures be devised to limit its extension and safeguard consumers of the flesh and milk of cattle from any dangers that may be incurred through subsisting on such aliment. Now that the officials who are responsible for the suppression of contagious diseases among animals are at length beginning to feel anxious there is some hope that something may be attempted towards getting rid of a scourge which is more serious than any other affecting bovine animals.

THE FUNGUS OF CHALAZION.

DR. M. F. WEYMAN, in the *Journal of the American Medical Association* of April 9th, 1892, publishes a paper read before one of the medical societies on researches made by him on the nature of the tumour which occasionally develops in the Meibomian glands of the eyelids, and is known by the name of "chalazion" Although Professor Virchow showed many years ago that it is a cystoplastoma, it still figures in many of our modern text-books as an ordinary cyst. Professor Virchow's nomenclature with reference to this little neoplasm is undoubtedly well chosen, but the term "granuloma," at first proposed by Dr. Thomas of Tours, seems preferable. Dr. Weyman attempted to ascertain the etiology of these growths, and has discovered a fungus which he considers explains the whole subject. The first thing he noticed were numerous spores which appeared in his sections. They were situated in the capsule and the tissue adjoining it. Towards the centre they became fewer in number. Many were seen floating free in the field; also mycelial branches seemed to penetrate through the capsule. Dr. Weyman at first thought that the spores might have developed in the staining fluids, or that thin fibrous tissue might simulate the appearance of hyphæ; but, after several trials, he succeeded in demonstrating small fragments of the fungus. They looked like very long and thick bacilli, and required strong illumination before they could be seen. Careful focussing showed that these little rods were not only on the surface of the section, but they could be traced successively through its whole thickness. Dr. Weyman employed the following method in his researches: The sections were immersed in a solution of caustic potash (one part of the hydrate to two of water). They were then placed under the microscope after gently warming the reagent. The sections readily dissolved and disappeared, leaving the fungus behind. Gentle washing removed the detritus, while a slightly acidulated current cleansed away the last tissue fragments, and also the potash. The fungus stained readily with magenta. The sporangia were represented by irregular terminal masses on the filaments, showing numerous spores embedded in its substance. The filaments were of two kinds, the thin and the thick, the latter greatly predominating. Of some fifty sections taken from different tumours, every one showed the parasite without fail. The conclusions at which Dr. Weyman arrived were:—1. Chalazia are not retention cysts, but true granulomata. 2. Their appearance in large numbers in successive periods suggests a parasitic etiology. 3. Their ready reproduction after removal also points in that direction. 4. The growth of granulation tissue presupposes a long-continued irritation of a low grade. 5. A fungus can be demonstrated. 6. The "fungus chalazicus" fully explains the etiology of the neoplasm.

THE VALUE OF CRICKET, EDUCATIONAL AND HYGIENIC.

IN the *Educational Review* the national game finds an ardent vindicator in the headmaster of Haileybury, the Hon. and Rev. E. Lyttleton. For him it has a distinct, not to say unique, "educational value." It teaches the young player bodily pluck, sufficient at least to inure him to stand up to fast bowling on a good wicket. Diffidence among boys of the present day is a very common source of weakness; but no one who has learnt to face a swift ball in presence of hundreds or even thousands of critics need be long despondent. The controlling of temper is another virtue acquired in the cricket-field. "The man," says Mr. Lyttleton, "who can walk away from the wicket, having been badly run out by his partner after getting twenty runs without a mistake"—to cite one vexation out of many—"has learnt an amount of self-discipline which no other frequent experience during his youth can possibly give him." The charge of an eleven, even of a school eleven, is also an admirable training in the management of men; and here Mr. Lyttleton becomes quite eloquent on the merits of the boy captain who has his team well in hand, whether for defence or attack, and has learnt to keep his head alike in unlooked-for success and in undeserved failure. All this, and a great deal more, he pronounces, and justly, "education"—education which has its proper place alongside, not in substitution, of the work for which schools are organised and maintained. The moral, if not the intellectual, powers receive in the cricket-field a development and a bracing which to the majority of youths could be imparted in no other way. Head-masters—the late Mr. Freeman notwithstanding—are quite justified, therefore, in choosing for some, not all, of their assistants men who can direct the operations of the cricket-field, so as to retain and enhance its undoubted "educational value." Mr. Lyttleton might have extended his approval to other pastimes besides cricket for their educational advan-

tages, and in so doing he might have admitted, if not pointed out, certain drawbacks which make "the national game" a doubtful, in some cases a dangerous, indulgence for growing youth. Cricket exacts, not only a violent, but what is worse, an irregular expenditure of effort, thereby incurring the just censure of those who find muscular exertion salutary and profitable in proportion to its being graduated and equable. A boy will stand at the wicket for several overs and have hardly any call made upon his strength or his running powers, or he may be playing a brisk game and putting on runs at the top of his speed for an hour or more. He may lose a partner who has aided him in this violent exercise, and, bathed in perspiration, he may have to stand quiescent in rain or in cutting wind while his next partner does nothing but block balls. The same irregularity of exercise, the same sudden alternation of high-pressure exertion with nearly absolute inactivity, characterises the fielding, to the manifest overstrain of heart and lungs, particularly of the former. Football is open to much the same kind of objection, and competitive rowing has its drawbacks. In the case of adults, and especially of those who are somewhat past their prime, not one of these pastimes can cope with golf as a means of gently, systematically, and effectively evoking muscular energy and maintaining the whole body, for a stated time, in equable exercise. Here there is no alternation of fierce exertion and semi-dormant quiescence; no sudden "spurts" or violent efforts of energy; no heats succeeded by chills; no "sharp curves" in muscular action when the limbs, stiffened by hours of disuse, are called upon for prompt and intense practice. Golf, moreover, requires in the good player quite as much exercise of judgment, of self-control, of pluck, of steadiness, and patience under adverse circumstances as any game followed out in the open. The fact, too, that old men and young can join in a match, with manifold advantage to both, is a further point in its favour not scored by cricket, or rowing, or football. The wider area over which it is played, involving more continuous and extended movement, explains the popularity it enjoys with robust youth and valetudinarian middle age alike. Mr. Lyttleton might add to his vindication of school sports an "Apologia" for golf, which could not fail to react for good, educationally and hygienically, on the rising generation. Certainly in grace, not to say dignity, and in the postures and sway of person it calls forth, it is more in harmony with the classical palestra than either of its more violent congeners—cricket or football.

MALIGNANT SMALL-POX AT NEWCASTLE: A DANGEROUS "CASUAL"

OUR Northern Counties correspondent, in his letter this week, notes that a case of malignant small-pox occurred at Newcastle last week. The circumstances of the case are somewhat unusual. A sailor came from North Shields from the Sailors' Home, where he had been staying, and presented himself for treatment amongst the casual patients waiting at the Royal Infirmary. As the case on being seen did not appear very clear, he was taken in and placed in a ward. Examination showed that the man was suffering from hæmorrhagic small-pox, and he was at once removed to the proper hospital, where he died the next day. It appears that the unfortunate sailor had come home from a foreign port and had stayed a few days at the North Shields Sailors' Home, where probably he passed through the stage of incubation. We know that the malignant or hæmorrhagic form of small-pox is by no means easy to diagnose at first, as often there are no characteristic eruptions; still the whole system is as it were saturated with the variolous poison, and death follows in from three to five days. We are glad to know that so far there has been no dissemination of the disease in Newcastle, and that every care has been taken to prevent its spread. Revaccination has been resorted to very freely by all students and nurses and others of the staff who may have been exposed to risk. The case, moreover, points to the necessity for increased vigilance and for efficient vaccination and revaccination. Sea-ports like Newcastle must of necessity be open to risks of this nature from time to time.

INCREASED DRUNKENNESS IN WOMEN.

IT is a matter of common belief that drunkenness in women is increasing very much. This view received confirmation at an inquest a few days ago touching the death of Mary Zeig, aged sixty-seven, an habitual drunkard. Dr. Norman Kerr testified that death was due to apoplexy consequent on habits of intemperance. She had been drinking three weeks continuously, and on the Friday had gone to a public-house and taken a quantity of rum. Dr. Kerr said he had never seen such a number of drunken women as in the Whitsuntide holidays. He had frequently seen groups of four or five—some quite young—in a state more or less intoxicated. He could only attribute it to the hot weather. We are afraid the cause lies deeper than in the weather. Dr. Danford Thomas stated that he had held lately an increased number of inquests upon women, many comparatively young, whose death was clearly due to alcoholic excess. This kind of evidence is very serious, and emphasises an evil which is about to be inquired into by a Departmental Committee. The jury were affected by the representations of the coroner and Dr. Kerr, and urged on the Committee the urgent necessity of compulsion in the treatment of chronic inebriates. The existing law is entirely inadequate. It is of use only to the wealthy, who can afford to go to retreats, and to those who have self-respect enough left to go voluntarily. Dr. Kerr suggested the creation of a special prison for the compulsory treatment of such cases. It might be called by some other name. But the suggestion is in the right direction and should be seriously considered by the committee. The condition of our chronic inebriates, and of the laws relating to them, are disgraceful to us, and deserve the anxious attention of statesmen of all parties.

THE ORGANISATION OF SCIENCE.

SPECIALISM with centralisation forms the sum and substance of a short paper bearing the above title, and issued with the object of introducing a new method into scientific publication. A society of investigation, says the author, should concern itself with some one particular field of research. Such institutions as the Royal Society, with its many and varied interests, are overgrown monstrosities. Their function, if they are allowed to exist at all in their present form, should be that of arranging for presentation to the general scientific intellect, the discoveries of smaller but more active pioneer societies. The formation of a scientific literature we are told is the chief purpose of a society. Lectures and discussions are little accounted of. There is truth in this, no doubt, but it is not the whole truth, and the author adds rather inconsistently a word in warm approval of what he calls informal personal discussions. He has a firm belief in London as the only possible headquarters of any society, though he also advocates the formation of local sections for country members. All independent—i.e., non-metropolitan—associations are expected to obliterate their separate identity and become branches of a central organisation. Any preference for an individual existence is mere *esprit de ville* and antagonistic to the principles of scientific order. The author's pet society is evidently the Linnean. He resents

anything that looks like poaching upon its preserves. Singularly enough, he recognises no breach of the law of specialism in the fact that this body cultivates the study of zoology as well as that of botany. Even the Zoological Society, he considers, has no right to the fauna, which he claims for the Linnean. This illogical attitude in a rigid specialist is hardly calculated to support his primary argument, which fails to convince us either that a science can be divested of its general relations, or that intellectual enterprise can be limited by the rules of a central bureau.

THE INSPECTION OF SEAMEN'S FOOD.

THE discussion of this subject still continues, and it is well that it should continue. It is clearly right that the food of seamen should be good, and that every effort to improve their hygienic condition should be made. This is not to be done by inspecting it perfunctorily on the day of sailing or after it is partly packed away. Rather is it to be done by fixing responsibility on someone for any defect in its nature or in its cooking. This is a responsibility that good shipowners should not hesitate to undertake even if it involves trouble and some slight diminution of dividend. A writer in *The Times*, Mr. George Herbert Little, says it should be made illegal for the shipowner to contract with the master for feeding the crew. We are inclined to agree with this. The captain is apt to try to make profit out of such an arrangement. The owner wants to make not profit but credit out of the food arrangements of his crew. Nothing would more conciliate and benefit the seamen, and there is everything in their peculiar life and their uninfluential position to make it the duty of the State to see that their wants are met, and that elements of fresh and succulent food are introduced as far as possible.

THE CONGRESS OF HYGIENE AND DEMOGRAPHY.

A WORK of art, which will vividly recall the interesting events of the Congress of Hygiene to the minds of those whose privilege it was to take part in its proceedings, has been published with no little pains and with remarkable skill and success by Barrauds, Limited, 263, Oxford-street, W. This memento of such an important meeting is presented to us in the form of a permanent photograph, containing the well-delineated faces of over a thousand of the members who took part in the various sections of the Congress. Each of the photographs has been taken separately, and the grouping subsequently arranged. Notwithstanding the vast sea of countenances, the eye is readily arrested by the forms and faces with which it is familiar. It were an invidious task even to name a few of the many illustrious men present at the Congress. The photograph will be treasured as a work of art, and as a means of revivifying the memories of acquaintances struck on that memorable occasion.

ALBUMINURIA AND OPIUM.

IT is difficult to feel any satisfaction with the verdict which was lately returned at a coroner's inquest in Carmarthen, or to endorse the remarks made by the coroner in the course of his summing up. From the evidence it appeared that the deceased, a man aged thirty, after exposure late one night complained of shortness of breath. His mother, two days later, went to a local druggist, told him how her son was suffering, and, after careful inquiry into the symptoms, a bottle of mixture and a box of pills were given to her with directions. The following day the man was so much worse that a medical man was called in, when he found the patient in a hopeless condition, with swollen limbs and albuminuria. In addition there were marked indications that opium had been administered, and it was admitted that both the pills and the mixture contained opium. The practitioner stated in evidence that he attributed death primarily to the condition of the kidneys and heart, accelerated by the action of opium. The coroner, while telling the jury that opium was the very worst remedy for the disease described, thought there was an error of judgment on the part of the druggist, who could not be blamed at all, since what he had done had been with the best intention, as his desire was to relieve the deceased, and, under direction, a verdict of "Death from misadventure" was returned. The druggist stated that he had been informed that the deceased, who was an educated man, had been doctoring himself with "castor oil and other things." The whole trouble seems to have arisen from the meddlesome desire to prescribe, and in this case the position is not improved by the fact that all details of the illness were given in the absence of the patient. Doubtless the druggist merely did what he was asked to do with the best intentions; but this case ought to serve as a most serious warning against counter-prescribing, as well as against the administration of opium in cases of albuminuria. The patient's own treatment of himself with castor oil would, as the sequel shows, have been attended by less danger.

THE LONDON AND COUNTIES MEDICAL PROTECTION SOCIETY.

A MOVEMENT is on foot for the extension of the above Society to East Anglia, and the counties of Hertford, Huntingdon, Lincoln, Yorkshire, and Cambridge. The central Society has its headquarters at 13, Royal-avenue, Sloane-square. The President is Mr. Hutchinson. The Vice Presidents include Dr. Broadbent, Dr. F. H. Alderson, Mr. Balding, F.R.C.S., J.P., Royston, Herts, and many well-known London and provincial names. The treasurer is Dr. George Heron, M.D., F.R.C.P., and the secretaries are Dr. George B. Mead of Newmarket and Dr. Hugh Woods of Highgate. There can be no doubt about the need for such a society. The only question is whether there is room for two. We have one already in very active and efficient working order with a large membership. The creation of another may give one of two bad impressions to the public—either that we need very much protection, or that we are a very disunited body. We commend this view to the best consideration of the promoters, with whose main object we, of course, sympathise.

CRUELTY AND VIVISECTION.

THE sixty-eighth annual meeting of the Royal Society for the Prevention of Cruelty to Animals held last week. From the report of the committee on that occasion we learn that the past year was one of greater vigilance, effort, and accomplishment than that which preceded it—6404 persons having been convicted in the former, 5890 in the latter. Among other matters discussed at the meeting was that of vivisection. It was indeed hardly to be expected that no speaker of those present should touch upon this topic, notwithstanding that, as the president, Lord Aberdare, observed, it hardly comes within the ordinary scope of the Society's work. His lordship, in replying to some remarks on this subject, reminded his hearers that by assuming the functions of anti-vivisection agitators they would seriously compromise the harmony of their own association and the success of its endeavours. The proper work of the Society was the repression of cruelty—that is, of the needless infliction of pain. Beyond the performance of this duty it had no power. He believed that the great majority of experiments upon living animals were painless. With any distinct case of cruelty thus

caused, however, he would be ready to deal. It is worth noting that the Society's agents have not thus far been required to act in such a case, nor, we may add, is there any reason to anticipate their interference. The question at issue, it should be remembered, does not concern the suffering animal only. It affects also the vital interests of man, and we are confident that a means of research which alone brings us to approximate certainty in the treatment of disease, even though it employ the pain of the lower to relieve that of the higher creature, will command the support of public opinion.

ALLEGED CHOLERA IN PARIS.

CASES of cholera are alleged to have occurred in and about Paris for several weeks past, and some of them have proved fatal. They have occurred during exceptionally hot weather, and at a time when water from the Seine has been distributed to the population. The use of this water is always found to be associated with risk, especially during summer weather, when, owing to drought, it is most resorted to. The alleged cases now occurring in Paris are regarded as sporadic only.

EXTIRPATION OF THE LARYNX.

THE number of cases in which the operation of removal of the entire larynx has been successfully performed is gradually increasing. The latest of these was recorded by Professor Wolff at the recent session of the Surgical Congress at Berlin, where the patient was exhibited eight months after the operation. The interest of the case is enhanced by the fact that by means of an artificial larynx, invented by Professor Bruns, the patient is able to speak and sing, as illustrated before the Congress by his recitation of a monologue from Schiller's "William Tell" and his singing of "Gaudeamus Igitur."

MEDICAL HEROISM.

ALTHOUGH daily there are members of our profession who perform deeds well entitled to the epithet "heroic," it is only now and then that some action more striking in the circumstances that surround it gains for it public notice. Such an act was performed a few days since at Sunderland, where three men were rendered insensible by carbonic fumes whilst cleaning out a stove connected with a blast furnace. Dr. Glen, who was sent for, at once ascended to the top of the stove, a height of 60 ft., and, lashing himself with a rope to prevent his falling, he successfully applied artificial respiration to each of the three victims, the time taken in this perilous task being fully an hour.

KILLED BY AN EMETIC?

A CASE of toxicological interest recently occurred at Macclesfield. J. B——, aged sixty-six years, went into a publichouse, and, after having some rum, told the landlord he had taken a pennyworth of sulphate of zinc. He does not seem to have vomited, but next morning he was found dead. It does not appear that a post-mortem examination was made, but a medical witness deposed that inasmuch as some common salt was administered to deceased to provoke emesis, the result would be that chloride of zinc would be formed, which would act as an irritant and cause perforation of the stomach. It is not safe to argue, from our knowledge of chemical decompositions out of the body, that exactly the same results would happen in the stomach. The fluids of the body contain chlorides in solution. Moreover, there is free hydrochloric acid in the gastric solution, and yet sulphate of zinc is considered a safe and proper emetic. We imagine that the death was due to the absorption of alcohol and zinc rather than to the irritation of the stomach, which, to say the least, was not sufficient in this case to provoke vomiting.

THE WORKING CLASSES AND HOSPITAL SUNDAY.

WE are glad to see hospitals (e.g., St. Mary's in *The Times*) disclaiming responsibility for encouraging street collections for hospitals. In one of these a poor child with spinal complaint has been carried round for mere sensational effect, regardless of *his* sensations. We feel convinced that noisy street demonstrations, especially on Sundays, are a mistake, and bring the cause into disfavour rather than otherwise. We have one good suggestion to make most respectfully to the working classes, and that is that they and their families should go, with all the money they can spare, to the various churches of London on Sunday, and so swell the hospital collection by £10,000. This will not diminish their own special collection. Apart from all dogmatic theology, the working-men of England are good Christians, and they cannot better show it than by joining the rest of the community in one of the highest Christian acts which blends all creeds and should blend all classes.

THE SUSPENSION OF A DISTRICT MEDICAL OFFICER.

WE await with much interest the reply of the Local Government Board to the letter of the solicitors of Mr. Walters. Since our last comments upon this case, Mr. Walters' suspension has been again considered by the guardians of the poor of his district, several of whom considered he had been too hardly and illegally dealt with; but on a vote being taken for the adoption of the report (recommending his suspension), it was carried by seventeen to six. We trust, therefore, that this division in the opinions of the guardians will not be lost sight of by the central authority, and that a Poor-law medical officer of thirty-eight years' standing will be honourably acquitted of having acted contrary to the law as laid down in the Consolidated Orders.

THE EXPOSURE OF INFECTION.

IT is not often that successful proceedings are taken for the exposure of infected persons or things, it being necessary to successful action to prove that the exposure was wilful. But a few days ago Dr. F. J. Allan, medical officer of health for Shoreditch, secured the conviction of a woman who, whilst her children were kept away from school in consequence of their suffering from scarlet fever, sent them about to do her shopping. The magistrate rightly stated that the practice was a most mischievous one, and he fined the woman ten shillings, with costs. It is to be hoped that, notwithstanding the comparative leniency of the fine, the lesson will be taken to heart by parents and others who often commit a like offence against the public health.

FOREIGN UNIVERSITY INTELLIGENCE.

Basle.—A chair of Hygiene is to be established.

Berlin.—The chair of Chemistry vacant by the death of Professor Hoffmann, has been offered to Professor Emil Fischer of Wurzburg, where he was appointed to succeed Wislicenus, on the latter's migration to Leipsic.

Buda-Pesth.—Drs. Haberern, Dirner, Bársony, and Roth mann have been recognised as *privat-docenten* of Surgery, Gynæcology, Midwifery, and Odontology respectively.

Erlangen.—Dr. Emil Graser has been appointed Extraordinary Professor of Surgery. He was for many years first assistant to Professor Heinecke.

Freiburg (Baden).—Dr. Rose has been appointed to the charge of the new dental out-patient department.

Gratz.—Dr. Borysiekiewicz has been appointed to the chair of Ophthalmology, and Dr. Jarisch of Innsbruck to that of Dermatology.

Rostock.—A new Eye Clinic, which is perhaps the best in Germany, has just been erected. It is fitted with electric light and electric bells, and the operation room is furnished exclusively with stone, metal, and glass materials.

St. Petersburg (*Medical Academy*).—Dr. Ballin of Kharkoff has been appointed to the chair of Medical Jurisprudence and Toxicology in succession to Dr. Sezokin.

Valladolid.—Señor Don Dr. Mariano Sancho Martin of Valencia has been appointed to the chair of Clinical Midwifery.

Vienna.—Dr. Otto Zuckerkandl has been appointed *docent* in Surgery. Dr. Bernheimer has been recognised as *privat docent* in Ophthalmology.

DEATHS OF EMINENT FOREIGN MEDICAL MEN.

THE deaths of the following distinguished members of the medical profession abroad have been announced:—Dr. Jacob Fischl, Professor of Mental Diseases and Physician in charge of the Lunatic Asylum in Prague.—Dr. Freudentheil, Sanitary Councillor of Wiesbaden.—Dr. Bernardo Figueroa, Vice-President of the Society of Clinical Studies, Havana.

THOSE of our readers whose autumnal holiday will find them in Italy in October next are reminded that the Fifth Italian Congress of Internal Medicine will meet in Rome on the 25th, 26th, 27th, and 28th of that month, when papers will be read on several subjects of present interest—pathological and therapeutic. All who wish to take part in the discussions must announce their intention of so doing to the secretary on or before Sept. 15th. The Italian railways allow a liberal reduction of fares to those of the profession who are inscribed as participants in the Congress.

A MEMORIAL TABLET has just been unveiled in his native Vasto, on the Adriatic, to the great Abruzzese anatomist, Giuseppe Pietrocola, for many years one of the chief lights of the Neapolitan school, where, in addition to professorships in anatomy and clinical surgery, he held for some time the post of Rector in the University. As a man of science and teacher he was in advance of his time, while it may interest English readers to know that he was a near relation of our illustrious painter and poet Dante Gabriel Rossetti.

WE understand that Dr. Edward Liveing (registrar of the Royal College of Physicians), Dr. Norman Moore, and Dr. Allchin will give evidence on behalf of the Royal College of Physicians before the Gresham University Commission.

AT the meeting of the Council of the Pharmaceutical Society of Great Britain on the 8th inst., Mr. Michael Carteighe was again elected President, an office held by him for the previous ten years.

THE vacancy in the surgical staff at St. Bartholomew's Hospital created by the resignation of Mr. Morrant Baker, F.R.C.S., has been filled by the election of Mr. Henry Trentham Butlin, F.R.C.S.

DR. B. W. RICHARDSON, F.R.S., will be a candidate for the Parliamentary representation of the Walton division of Liverpool at the coming general election.

OPEN SPACES.—A Local Government inquiry was held last week at Accrington upon an application by the town council to borrow £12,048 for the construction of a new park at Oakhill. There was no opposition. The ground is well situated and comprises thirteen acres.

THE ANNUAL DINNER OF THE ARMY MEDICAL STAFF.

THE annual dinner of the Army Medical Staff was held at the Hôtel Métropole on Monday last. Sir Wm. Mackinnon, K.C.B., Director-General, was in the chair. Brevity in the speeches was the order of the day; but Sir Joseph Fayrer, in proposing the toast of the evening, dwelt at some length upon the great improvement that had taken place in the position of the army medical officer. The company numbered about 150.

The officers of the Army Medical Staff present at the dinner were:—

Director Generals (Surgeon-Major-Generals): Sir T. Crawford, K.C.B., and Sir W. A. Mackinnon, K.C.B. (in the chair). Surgeon-Major-Generals: J. G. Faught, D. A. C. Fraser, J. Irvine, S. A. Lithgow, C.B., D.S.O., W. H. Muschamp, and J. B. C. Reade, C.B. Surgeon-Colonels: O. Codrington, Professor H. Cayley, W. G. Don, A. G. Elkington, A. A. Gore, Professor C. H. Y. Godwin, J. B. Hamilton, H. C. Herbert, J. H. Jeffcoat, C. M. Jessop, E. McGrath, T. Maunsell, A. F. Preston, E. H. Roberts, P. B. Smith, W. Sly, F. E. Scanlan, and H. R. L. Veale. Brigade-Surgeon-Lieutenant-Colonels: J. Adcock, J. F. Beattie, C. Cuffe, C.B., G. A. Gribbon, J. Hector, J. G. Leask, C. Mackinnon, W. T. Martin, W. Nash, T. Mould, Professor J. L. Notter, W. F. Rutledge, W. B. Ramsbotham, D. Renton, F. B. Scott, C.M.G., E. D. Tomlinson, W. W. Tomlinson, T. Wright, and T. W. Wright. Surgeon-Lieutenant-Colonels: D. B. Brown, W. P. Bridges, J. Coates, M. M. Gallwey, F. Johnson, J. McNamara, and W. F. Stevenson. Surgeon-Majors: J. R. A. Clark, E. A. Croly, S. H. Carter, J. J. Crean, W. A. Carte, P. J. Dempsey, W. E. Gubbins, H. Grier, T. Ligertwood, W. H. Macnamara, N. McCreery, T. Murtagh, E. North, E. R. Power, E. A. H. Roe, and R. Smith. Surgeon-Captains: E. A. Burnside, W. Babtie, W. H. Bean, W. G. Bedford, T. H. F. Clarkson, A. M. Davies, R. H. Firth, R. S. F. Henderson, J. W. Jerome, A. G. Kay, J. D. Moir, W. W. Pope, J. M. Reid, S. O. Stuart, T. B. A. Tuckey, C. R. Tyweil, and T. P. Woodhouse. Guests present: The President of the Royal College of Surgeons (T. Bryant, Esq., F.R.C.S.), Sir Joseph Fayrer, K.C.S.I., Sir W. MacCormac, C. N. Macnamara, Esq., F.R.C.S., Vesey Holt, Esq., E. Hart, Esq., and H. Power, Esq.

INTERCOLONIAL MEDICAL CONGRESS OF AUSTRALASIA.

THIRD SESSION, SYDNEY, NEW SOUTH WALES, 1892.

THE first session was in Adelaide, the second in Melbourne, and, following the line of the colonial capitals eastwards, the third session will commence in Sydney on Sept. 29th of this year. The chairman is Dr. P. Sydney Jones, the treasurer Dr. Thomas Chambers, and the joint general secretaries Professor Anderson Stuart and Dr. S. T. Knaggs. Influential general and executive committees have been formed and a guarantee fund of over £800 established. Special low rates are usually levied by the different intercolonial steamship companies and by the railways upon such occasions, for many members have to travel a whole week in order to be present at the meetings, so great are the distances. The P. and O. and Orient Companies have granted special concessions to visitors from Europe should any member of the profession in Europe think of combining a little work with the *grand tour*; they would see Australasia under the most favourable conditions, and would meet their medical brethren from all parts of the colonies. The meetings will be held within the palatial buildings now completed for the medical school of the University of Sydney, so that all the sections may meet under one roof—a very great convenience, especially in an almost semi-tropical place like Sydney, although the month of September has been chosen as most likely to have good weather. The posts of honour have been conferred only upon members residing in other colonies than New South Wales, the colony in which the meeting is held this time, and in this way the earnest and useful work done by the past presidents and local secretaries has been recognised. The arrangements which have just been briefly noticed were made by a provisional executive committee, but were ratified at a meeting and adjourned meetings of the profession and of the New South Wales section of the Congress, held in Sydney on March 25th and April 7th and 22nd, after a thorough and at times warm discussion. The apparent ground of difference was the manner in which the Provisional Executive Committee, the treasurer, and

the joint general secretaries had been appointed in Melbourne. In the end, however, though not without a protest from the minority, the work done was ratified by the majority, and, with a few trivial changes, the report of the provisional executive committee was adopted. From the marked interest now being taken in the work of the Congress in all the colonies, it is anticipated that the session will be a great success. To such a result the fact that the session will be in Sydney will largely contribute, for the picturesque surroundings of the city and the hospitality of the people are proverbial, while the splendid accommodation for the meetings of the Congress and its sections provided by the medical school and other University buildings is unequalled in the colonies, and perhaps not excelled in any part of the world.

THE RAILWAY COLLISION AT BISHOPSGATE.

WE are indebted to Mr. Charles Rolfe, house surgeon to the London Hospital, for an account of the nature of the injuries inflicted in the railway collision which occurred at Bishopsgate Station on Tuesday morning, the 14th inst. It appears that fourteen cases of injury were received into the wards of the London Hospital, and were placed under the care of Mr. Treves. Of those patients two died immediately after admission to the wards from the severity of their injuries, making in all six deaths from the accident. The other patients are doing well, and the injuries may be briefly described as follows:—

1. Fracture of femur, tibia, and fibula simple on same limb; fracture of radius, with dislocation of wrist outwards; fracture of several ribs and contusions. 2. Compound fracture of tibia and fibula, with severe scalp wounds and concussion. 3. Fracture of femur on left side; fracture of clavicle on right side, contusion, &c. 4. Fracture of several ribs, injury to chest, and severe shock. 5. Fracture of pelvis and sternum and contusions. 6. Fracture of pelvis and shock. 7. Fracture of tibia and fibula, dislocation of shoulder, and contusions. 8. Contused legs and severe scalp wound. 9. Shock and contusion. 10. Severe sprain of knee and ankle, with contused chest and shock. 11. Sprained ankle and shock.

Besides the cases admitted to the hospital as in-patients, about thirty other cases were treated at the hospital and sent away. We have not been favoured with any reply to our inquiries regarding the cases which were treated in St. Bartholomew's Hospital. But most of those admitted were suffering from injuries of a severe character. In all, besides those who lost their lives, some fifty persons were more or less severely injured in the collision.

HOSPITAL SUNDAY SERMONS.

John-street Chapel, Theobald's-road, W.C., Rev. J. Shephard, F.G.S.—Morning, "But he was a leper"; Evening, "How far is faith healing consistent with the Scriptures?"

Parish Church, Lewisham, S.E., Rev. Samuel Bickersteth, M.A.—Morning, "As poor, yet making many rich"; Evening, Rev. T. B. Charlesworth, M.A., "Partakes of the sufferings."

St. John, Horsleydown, Rev. W. J. Batchelor.—"The Rewards of Kindness" (St. Mark ix., 41).

Swiss Church, Rev. Alb. H. Roerich.

Lewisham-road Chapel, Rev. A. C. Gray.—Morning, "The Healing Power of Christianity" (Matt. x., 1 and 8); Evening, "The Balm of Gilead" (Jeremiah viii., 22).

Corpus Christi College Mission, 39, New Cross-road, Rev. W. W. Hough.—Morning, "The Work of the London Hospital"; Evening, "Bearing one another's Burdens."

St. Joseph's Church, Roehampton, S.W., Rev. M. King, S.J.—"Christ's Legacy to the Suffering Poor."

St. Luke's, West Holloway, Rev. R. Glover, M.A.—"A Divine Prescription for Bodily Health" (Prov. iii., 7 and 8).

St. Augustine, Kilburn, Rev. G. Greenwood, Chaplain to the Medical Guild of St. Luke.—"The danger of our losing sight, in contending for the faith &c., and of the great duty of Christian benevolence &c." (Ep. to St. Titus, iii., 8); Evening, Rev. R. C. Kirkpatrick, "The dignity and destiny of the human body, and the Church's duty of ministering to its sufferings from our Lord's example" (St. Mark vi., 56).

All Saints', Hatcham Park, S.E.—Morning, Rev. J. Seaver, M.A., vicar of St. Mary's, Peckham; Evening, Rev. Evelyn J. Hone, M.A., vicar of St. John's, Deptford, and rural dean of Greenwich.

Waldegrave-road New Church, Anerley, Rev. William Heald.—Morning, "Healer of Diseases" (Psalm ciii., 3); Evening, "Healing by Touch" (St. Mark i., 41, 42)

St. Marylebone Parish Church (the Old Parish Church), Rev. E. Thomas, M.A., B.C.L.Oxon., Incumbent.—"The Mystery of Pain" (Romans viii., 22).

Forest-hill Congregational Church, Rev. R. Alex. Johnson, B.A.—Morning, "The Infallible Lawgiver and Teacher"; Evening, "Life and Immortality" (Job ii., 4).

St. Phillip's, Queen's-road, Battersea, S.W.—Morning, Rev. E. H. Jones, Vicar; Evening, Rev. C. P. Greene, Rector of Clapham.

St. Luke's, Uxbridge-road, Rev. W. St. Hill Bowme, Vicar.—Morning, "Hôtels-Dieu"; Evening, Rev. C. M. Mivre, Vicar of St. Peter's, Bayswater.

Christ Church, Harrow-road, W. (late Lock Chapel), Rev. H. C. Thwaites, Incumbent.—"Jesus as Physician and Friend."

Federation of Synagogues, 66, Mansell-street, Rev. Henry Harris.—"That ye may see and remember all the Commandments of the Eternal and do them" (Num. xv., 39).

The Old Grand Chapel, Hackney, Rev. J. De Kewer Williams.—"A rare Case of Fever" (Matt. viii., 14, 15); Evening, "A Common Disease of the Ear."

St. Anne's, Soho.—Morning, Rev. J. H. Cardwell, "Lazarus in London"; Evening, Rev. H. B. Freeman, "The Conquest of Pain."

St. John the Evangelist, Brownswood Park, Finsbury Park, N., Rev. G. Birkett Latreille.—"Practical Benevolence."

Baptist Church, Ilford, E., Rev. J. Parker, M.A.—Morning, "Suffering London" (Luke xix., 41); Evening, "The Divine Healer" (John v., 5, 6).

St. Bartholomew Parish Church, Gray's-inn-road, Rev. R. J. Golding-Bird.—Morning, "The Eleventh Commandment"; Evening, "The True Neighbour."

St. Botolph, Bishopsgate.—Morning, Rev. Walter Crick, M.A., "The Martyrdom of Man"; Evening, Rev. G. O'Donoghue, "The Work of the London Hospitals."

St. Barnabas, Addison-road, Rev. G. R. Thomson.—"A Fresh Incentive to Work and Sympathy" (St. John x., 3, 4).

Hillingdon Church, Uxbridge, Rev. H. F. de Convey-Benwell.—"Christ Present in Suffering Humanity."

All Saints', Wandsworth, Rev. J. W. James.—"The Saviour's Sympathetic Sorrow."

Dartford Parish Church.—Morning, Rev. Allan H. Watts, "Light on a Dark Cloud"; Evening, Rev. A. T. Polhill-Turner, "The Great Physician."

THE DEATH OF CAPTAIN STAIRS.

CAPTAIN WILLIAM GRANT STAIRS, whose death has been reported, had just completed his thirtieth year. He was one of six children. His father, the late Mr. John Stairs, was an influential member of one of the oldest and most respected families in Halifax, Nova Scotia. His mother still survives, and one of his sisters married Surgeon-Major Burke, A.M.S., now serving in India. Captain Stairs was educated at Merchiston Castle School, Edinburgh, and entered Kingston Military College, Ontario, where he qualified for admission to the Royal Engineers, but was not selected owing to the limited number of vacancies. He then spent some time surveying in New Zealand and returned to Halifax, where he was offered and accepted a commission in the Royal Engineers corps. Previously to his joining the Emin Pasha Relief Expedition he had not seen any foreign or active service. For three years—1887, 1888, and 1889—he served under Mr. Stanley while crossing Africa from west to east, and was present during the principal events which resulted in the rescue of Emin Pasha and his followers. During this period of difficulty and danger he gained the admiration and love of his chief, his comrades, and his men. At the commencement of the expedition he suffered from an attack of typho-malarial fever, but was able to leave the base at Yambuya and accompany Mr. Stanley in search of Emin. At the action of Avisiba he received a wound from a poisoned arrow one inch below the heart, and for fifteen months he carried over an inch of arrow-point in his breast, performing heavy duties all the time. The wound was immediately sucked by Surgeon Parke, and no ill effects supervened. All the remaining men who were wounded by poisoned arrows at this fight died of tetanus.

On returning from the Albert Nyanza, Stairs was selected to march from Fort Bodo to the Ipoto, a distance of eighty miles, to rescue Surgeon-Captain Parke and Captain Nelson from the savage Manquema, which task he performed skilfully. He was then sent to escort couriers with letters to Major Bartellot, and bring back convalescents from Ugarrowwa's to Fort Bodo, covering 368 miles through dense forest, and returning in sixty-nine days with fourteen out of the total fifty-six invalids who had been left to recruit at that place.

During Mr. Stanley's absence in search of the rear column Captain Stairs was left at Fort Bodo with Parke and Nelson for 188 days, and performed his duty with "courage, care, watchfulness, diligence, and fidelity."

While he was commandant at Kandékore Camp everything was in perfect order; and the gallantry he displayed when he assaulted and rushed a cane-brake of Mazamboni's indirectly led to subsequent peace and friendship with this powerful and important chief. On June 6th Stairs was the only one "fit" to ascend "Ruwenzori," or the Mountains of the Moon. After two days he reached a height of over 10,000 feet, and discovered several interesting plants. A few days later he explored the south end of the Semliki Valley, and made his report. These are a few of the valuable and difficult duties he performed between June, 1887, and December, 1889. When Stairs returned to this country both his chief and his comrades acknowledged his superior intelligence, zeal, and good fellowship. The military authorities, as a reward for his good work, offered him either a troop in a cavalry regiment or a company in infantry; he accepted the latter, and thus became a captain, as he had been a lieutenant in the Royal Engineers when he started.

After a short stay in England he undertook the command of a Belgian expedition to Katanga, on the west of the Tanganyka lake. He was returning with his expedition down the Zambesi river after having successfully accomplished his mission in the interior of Africa, and just as he reached the sea on his way home he died. One of his first acts on returning from Africa in 1890 was to write a letter to the Director-General of the Army Medical Service, asking that it might be placed on record that his life had been saved by Surgeon Parke having sucked his poisoned wound. His letter to THE LANCET of May 23rd, 1891, also gives an index to his generous and grateful character.

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

In thirty-three of the largest English towns 5710 births and 3490 deaths were registered during the week ending June 11th. The annual rate of mortality in these towns, which had been 19·4 and 17·9 per 1000 in the preceding two weeks, was last week again 17·9. In London the rate was 17·5 per 1000, while it averaged 18·1 in the thirty-two provincial towns. The lowest rates in these towns were 11·8 in Croydon, 11·9 in Cardiff, 12·5 in Derby, and 12·8 in Nottingham; the highest rates were 23·7 in Manchester, 24·1 in Oldham, 25·8 in Preston, and 26 5 in Swansea. The 3490 deaths included 466 which were referred to the principal zymotic diseases, against 478 and 455 in the preceding two weeks; of these, 205 resulted from measles, 85 from whooping-cough, 63 from diarrhœa, 51 from diphtheria, 42 from scarlet fever, 19 from "fever" (principally enteric), and 1 from small-pox. No fatal case of any of these diseases occurred last week in Norwich or in Hull; in the other towns they caused the lowest death-rates in Bradford, Huddersfield, and Brighton, and the highest rates in London, Oldham, West Ham, and Swansea. The greatest mortality from measles occurred in Birmingham, Manchester, London, Oldham, Birkenhead, West Ham, and Halifax; from scarlet fever in Preston and Oldham; from whooping-cough in Preston, Swansea, and Sunderland; from "fever" in Swansea; and from diarrhœa in Derby and Burnley. The 51 deaths from diphtheria included 37 in London, 3 in Salford, 2 in West Ham, 2 in Birmingham, and 2 in Nottingham. A fatal case of small-pox was registered in Newcastle-upon-Tyne, but not one in London or in any other of the thirty-three large towns; 73 cases of this disease were under treatment in the Metropolitan Asylum Hospitals, and 12 in the Highgate Small-pox Hospital, on Saturday last. The number of scarlet fever patients in the Metropolitan Asylum Hospitals and in the London Fever Hospital at the end of the week was 1878, against numbers increasing from 1226 to 1820 in the preceding eleven Saturdays; 207 cases were admitted during the week, against 202 and 215 in the previous two weeks. The deaths referred to diseases of the respiratory organs in London, which had declined from 304 to 240 in the preceding four weeks, further fell to 208 last week, and were 53 below the corrected average. The causes of 85, or 2·5 per cent., of the deaths in the thirty-three towns were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in Croydon, Norwich, Bolton, Blackburn, and in five other smaller towns; the largest proportions of uncertified deaths were registered in Leicester, Liverpool, Preston, and Sheffield.

HEALTH OF SCOTCH TOWNS.

The annual rate of mortality in the eight Scotch towns, which had been 22·1 and 20·2 per 1000 in the preceding two weeks, rose again to 20·8 during the week ending June 11th, and exceeded by 2·9 per 1000 the mean rate during the same period in the thirty-three large English towns. The rates in the eight Scotch towns ranged from 11·9 in Leith and 15·8 in Dundee to 26·4 in Greenock and 26·8 in Paisley. The 578 deaths in these towns included 30 which were referred to whooping-cough, 27 to measles, 13 to diarrhœa, 6 to scarlet fever, 4 to "fever," 2 to diphtheria, and not one to small-pox. In all, 82 deaths resulted from these principal zymotic diseases, against 80 and 70 in the preceding two weeks. These 82 deaths were equal to an annual rate of 2·9 per 1000, which exceeded by 0·5 the mean rate last week from the same diseases in the thirty-three large English towns. The fatal cases of whooping-cough, which had declined from 26 to 20 in the preceding three weeks, rose again to 30 last week, of which 20 occurred in Glasgow, 4 in Aberdeen, and 3 in Edinburgh. The deaths referred to measles, which had been 32 and 34 in the previous two weeks, declined to 27 last week, all of which were recorded in Glasgow. The 13 fatal cases of diarrhœa showed a further increase upon recent weekly numbers. The 6 deaths from scarlet fever were within one of the number in the preceding week, and included 2 in Glasgow and 2 in Edinburgh. Of the 4 fatal cases of "fever," 2 were recorded in Dundee. The deaths referred to diseases of the respiratory organs in these towns, which had been 120 and 123 in the preceding two weeks, were 124 last week, and were 15 below the number in the corresponding week of last year. The causes of 48, or more than 8 per cent., of the deaths in these eight towns last week were not certified.

HEALTH OF DUBLIN.

The death-rate in Dublin, which had declined in the preceding three weeks from 34·6 to 28·6 per 1000, further fell to 24·0 during the week ending June 11th. During the first ten weeks of the current quarter the death-rate in the city averaged 32·4 per 1000, against 19·4 in London and 18·7 in Edinburgh. The 161 deaths in Dublin during the week under notice showed a decline of 31 from the number in the preceding week, and included 25 which were referred to measles, 1 to whooping-cough, 1 to diarrhœa, and not one either to small-pox, scarlet fever, diphtheria, or "fever." In all, 27 deaths resulted from these principal zymotic diseases, equal to an annual rate of 4·8 per 1000, the zymotic death-rate during the same period being 3·1 in London and 2·0 in Edinburgh. The fatal cases of measles, which had declined from 28 to 21 in the preceding three weeks, rose again to 25 last week. The deaths referred to "fever," which had been 6 and 3 in the preceding two weeks, declined to 1 last week. The 161 deaths registered in Dublin last week included 38 of infants under one year of age, and 28 of persons aged upwards of sixty years; the deaths of infants showed a slight further increase upon recent weekly numbers, while those of elderly persons showed a marked decline. Five inquest cases and 5 deaths from violence were registered; and 34, or more than 20 per cent., of the deaths occurred in public institutions. The causes of 22, or nearly 14 per cent., of the deaths in the city last week were not certified.

THE SERVICES.

Brigade-Surgeon W. Dymock, Retired List, Indian Medical Service, died at his residence, Malabar Hill, Bombay, on April 29th, aged fifty-nine. He was eldest son of the Rev. T. F. Dymock, rector of Hatch Beauchamp, Somerset.

Colonel H. A. Bushman, C.B., half-pay, late 9th Lancers, has been selected to succeed Colonel W. H. Lee as Assistant Adjutant-General at Netley on the 25th proximo.

The Government of India has decided that, as Officers of

the Indian Medical Service of less than three years' full-pay service have now the rank of subaltern only, they are entitled under the provisions of paragraph 282, Army Regulations, vol. x, part 1, to a free passage by sea when proceeding to England on leave on medical certificate.

Surgeon-Colonel J. B. Hamilton, Principal Medical Officer of the Western District, has been appointed to a similar post on the staff of Major General Lord Methuen, commanding the Home District.

Surgeon-Colonel R. Lewer proceeds to Gibraltar, as Principal Medical Officer in succession to Surgeon-Major-General R. W. Meadows.

A NEW ARMY REGULATION.

A new Queen's regulation for the Army has been promulgated from the War Office by the Commander-in-Chief as to reports which general officers commanding at home and abroad are to send in as to the state of their commands as soon as possible after Jan. 1st in each year. The reports are to *deal with the health of the troops* generally, showing whether there has been any unusual increase or decrease of sickness, with the explanation thereof, if possible; the general condition of defences, barracks, &c., and the progress of military works; the general condition of mobilisation equipment, stores, storehouses, &c.; the working of any new regulation or system, or the utility of any new arm or equipment, and any other matter which may be of importance and interest.

SURGEON-CAPTAIN H. C. GORDON.

By the arrival of the steamer *Oil Rivers* in the Mersey on Saturday last news was received of the death of Surgeon-Captain H. C. Gordon, M.D., who recently took part in the operations against Tambi, near Sierra Leone. Surgeon-Captain Gordon was stationed at Sierra Leone when the news was received of the British defeat at Tambi, and the killing of Captain Robinson. He went up the river with the avenging party of West Indian troops, who captured the place and killed numbers of the enemy. He suffered from heart disease, and was on that account coming home in the steamer *Oil Rivers*, on which he embarked at Sierra Leone on the 27th ult., but died three days later, and was buried at sea. He was about thirty-five years of age, and belonged to Aberdeen.

DEPUTY-INSPECTOR-GENERAL R. TEMPLETON.

The announcement of the death of Deputy-Inspector-General R. Templeton, M.D., will be a subject of regret to the few contemporary medical officers that survive him, as well as to the larger number of those who knew him. Dr. Templeton was a member of the Ordnance Medical Department, and it is of interest to recall the fact that the organisation of the present Army Medical Staff is on very similar lines to those that existed in the old Ordnance Medical Department. Dr. Templeton after serving at home went to Ceylon, and was for a long time Surgeon of the Royal Artillery at Malta, and later on went to the Crimea. On his retirement he was appointed medical officer in charge of the Royal Hibernian School, Dublin. As a medical officer he was highly respected in his time, and was one of the first to apply operative treatment in cases of real and supposed abscess of the liver, of which his service in Ceylon gave him much experience. He had the reputation of being an excellent mathematician. Deputy-Inspector-General of Hospitals R. Templeton, M.D., Surgeon-Major Retired List, died at 42, Bayswater-road, Shepherd's-bush, W., on the 2nd inst. He joined the Army, May 6th, 1833; became surgeon, April 5th, 1847; surgeon-major, Dec. 7th, 1855; and retired Jan. 31st, 1860, with the honorary rank of deputy-inspector-general.

AMBULANCE WORK AND MATERIAL IN PEACE AND WAR

Mr. John Furley, J.P., read an interesting paper on the above subject at the Royal United Service Institution on the 10th inst., Sir Thomas Crawford, M.D., K.C.B., in the chair. The object of the lecture was to show that the Army Medical Service could be supplemented in time of war, and that much could be gained by co-operation between military and civil organisations, together with the methods by which this might be accomplished. Probably no one possesses a larger amount of experience in connexion with this subject than Mr. John Furley, and, as might have been anticipated, he had much to say that was both practical and useful, especially in connexion with ambulance transport and material, and the utilisation of corps of civilians trained by the St. John Ambulance Association. Among other points he ventured an opinion that the British Army possessed the best and strongest built waggons but about the worst ambulance carriages for the conveyance of sick and wounded. After having discussed the subject of his lecture in detail he summed up the conclusions to be deduced from it. Sir Vincent Kennett Barrington, Inspector-General Lawson, Surgeon-Major Pratt, and Mr. Archibald Forbes took part in the subsequent debate on the paper.

ARMY MEDICAL STAFF.

Surgeon-Major-General J. B. C Reade, C.B., who attains the limit of age on the 7th proximo, is to be retained until March 31st, 1893, to permit of his putting in the period of five years as professional assistant to the Director-General. It is presumed that this officer will be Supernumerary of his rank in order that his retention may not interfere with promotion.

INDIAN MEDICAL SERVICE.

Bombay.—Surgeon-Captain M. A. T. Collie, M.B., C.M., acting Resident Surgeon, European General Hospital, Bombay, is allowed furlough on medical certificate for one year.—H.E. the Governor in Council is pleased to make the following appointment: Surgeon-Major D. C. Davidson to relieve Surgeon-Captain H. W. Stevenson of his duties as Superintendent, Mahableshwar.—H.E. the Governor in Council is pleased to appoint Surgeon-Captain T. E. Dyson, M.B., C.M., to be Deputy Sanitary Commissioner, Gujarat Registration District, vice Dr. M. B. Kola, M.D., retiring.—H.E. the Governor in Council is pleased to appoint Surgeon-Captain T. D. C. Barry to be Chemical Analyser to the Government, vice Brigade-Surgeon-Lieutenant-Colonel I. B. Lyon, C.I.E., retired.—Surgeon-Captain J. Crimmin, V.C., and Surgeon-Major F. F. MacCartie, M.B., respectively delivered over and received charge of the office of the Health Officer of the Port of Bombay on May 17th, 1892.

Bengal.—The services of the undermentioned Officers of the Bengal Establishment are placed temporarily at the disposal of the Government of Bengal: Surgeon-Captains T. Grainger, M.D., and J. G. Jordan, M.B., C.M.—Surgeon-Captain H. E. Banatvala, Bengal Establishment, whose services have been placed temporarily at the disposal of the Chief Commissioner, Central Provinces, is posted to the Bilaspur District as Civil Surgeon and Superintendent of the Gaol.

Hyderabad.—On the application of the Nizam's Government the Government of India have sanctioned a five years' extension of the service of Surgeon-Captain Hehir, who is the head medical officer of the regular troops and health officer to the Chadarghat Municipality.

Madras.—Surgeon-Captain J. A. Burton, Madras Establishment, is appointed to officiate as Civil Surgeon of Amraoti during the absence on furlough of Surgeon-Captain R. B. Roe.—Surgeon-Major H. Allison, M.D., Fort Surgeon, Madras, is appointed to act as Chemical Examiner, Madras, without prejudice to his own duties, during the absence of Surgeon-Captain J. L. Van Geyzel, M.D., on furlough.—Surgeon-Major G. L. Walker, M.D., is appointed to act as District Surgeon, Malabar, and Superintendent of Gaol, Calicut, during the employment of Surgeon-Major A. H. Leapingwell on other duty.—Surgeon-Major S. C. Sarkies is appointed to act as District Surgeon and Superintendent of Gaol, Nellore, during the employment of Surgeon-Major G. L. Walker on other duty.—Surgeon-Major W. F. Thomas is appointed to act as District Surgeon, Chingleput, during the employment of Surgeon-Major H. A. F. Nailer on other duty.—Surgeon-Major W. F. Thomas is appointed to act as Superintendent, Reformatory School, Chingleput, during the employment of Surgeon-Major H. A. F. Nailer on other duty.—Surgeon-Lieutenant R. K. Mitter, Indian Medical Service, doing duty in the Madras District, to do duty in the Secunderabad District.

Oudh.—Surgeon-Captain G. H. Fink, Civil Surgeon, Bijnor, is granted privilege leave for forty-two days, from May 15th, 1892.

Surgeon-Major P. J. Freyer, Civil Surgeon, Moradabad, is appointed to hold visiting medical charge of the Bijnor District, in addition to his other duties, during the absence on privilege leave of Surgeon-Captain G. H. Fink.

Surgeon-Captain G. C. Hall, Indian Medical Department, is granted leave to proceed out of India on medical certificate for six months' Pension service, sixth year, commenced Nov. 11th, 1891.

Brigade-Surgeon-Lieutenant-Colonel J. Smith, Medical Officer, 25th Regiment Madras Infantry, for six months, from April 17th, 1892, on medical certificate.

The undermentioned officer is granted furlough out of India:—Surgeon-Lieutenant-Colonel H. Johnstone, M.D., Civil Surgeon, Rangoon, medical certificate for one year.

Brigade-Surgeon-Lieutenant-Colonel P. Cullen, M.D. Civil Surgeon Nursingpore, Central Provinces, is permitted to retire from the Service, from June 1st, 1892, subject to Her Majesty's approval.

MILITIA MEDICAL STAFF.—Surgeon-Lieutenant-Colonel W. Malcomson, 4th Battalion, Princess Victoria's (Royal Irish Fusiliers), resigns his commission; also is permitted to retain his rank and to wear the prescribed uniform on his retirement.

NAVAL MEDICAL SERVICE.—In accordance with the provisions of Her Majesty's Order in Council of April 1st, 1881, Fleet Surgeon Henry Nanton Murray Sedgwick has been placed on the Retired List at his own request, with permission to assume the rank of Deputy-Inspector-General of Hospitals and Fleets; Fleet Surgeon Ralph Westropp Brereton has been placed on the Retired List at his own request.—The following appointments have been made at the Admiralty:—Fleet Surgeons Isaac H. Anderson to

Plymouth Hospital (dated June 11th, 1892). Staff Surgeons: Henry A. W. Richardson to Plymouth Hospital (dated June 11th, 1892); H. W. D. Walsh to the *Hecla*, Robt. Bentham, to the *Neptune*, to join July 2nd, and Alex. L. Christie, M.B., to the *Serapis* (all dated June 15th, 1892). Surgeons; Joseph C. Wood to the *Alecto*, Hugh W. Macnamara and Hamilton E L. Earle to the *Pembroke*, additional (all dated June 11th, 1892); Deputy-Inspector-General Thos. S. Burnett to Jamaica Hospital.—Surgeons and Agents: George B. Elliott to Brixham and Thomas Shonhan to Bonmahon (both dated May 14th, 1892); John F. Newland to Kingstown and Dalkey (dated May 26th, 1892).

VOLUNTEER MEDICAL STAFF CORPS. — The Norwich Company: Charles Hyde Champion Cousins, Gent., to be Surgeon-Lieutenant—*Infantry:* Aberdeen Brigade: Surgeon-Lieutenant-Colonel A. Fraser, M.D., 1st Volunteer Battalion, the Gordon Highlanders, to be Brigade-Surgeon-Lieutenant-Colonel.

VOLUNTEER CORPS. — *Artillery:* The Tynemouth (Western Division, Royal Artillery): Surgeon-Captain J. F. Haswell, M.B., resigns his commission (dated June 11th, 1892).—*Royal Engineers* (Fortress and Railway Forces): 1st Durham: Surgeon-Lieutenant J. D. Leigh resigns his commission (dated June 11th, 1892). — 1st Gloucestershire: George Herbert Ward-Humphreys, Gent., to be Surgeon-Lieutenant (dated June 11th, 1892).—*Rifles:* 3rd Volunteer Battalion, the Welsh Regiment: Surgeon-Captain J. L. Leckie to be Surgeon-Major (dated June 11th, 1892).

Correspondence.

"Audi alteram partem."

DISPUTED CASE OF SCARLET FEVER.

To the Editors of THE LANCET.

SIRS,—As the magistrate criticised severely my conduct in this case, I shall be glad if you will allow me space to explain how it was I acted as I did.

On May 19th I was called to see Emily Williams by the mother, and I was informed by no one that there was anything peculiar about the case. I continued to attend her almost daily through a mild but well-marked attack of right-sided pleurisy, with pain, rapid breathing, and well-marked pleuritic rub. The child was never seriously ill, and was convalescent on the 28th, when my visits ceased. About the 25th a member of the Fulham Vestry called upon me and told me I was attending a case of scarlet fever. This I denied. He mentioned the number of the house at which I was attending, but still I told him he was mistaken; there must be two children ill in the house. However, he made it clear to me that my case was the one the medical officer of health had certified as scarlet fever. When I discovered this, knowing that this member of the vestry would soon be seeing the medical officer of health, I asked him if he would kindly make it clear to him that I attended the case in ignorance, and gave my diagnosis before I knew he had ever seen it, as I had no wish to quarrel with the medical officer of health. The case then came before the guardians, and my diagnosis was made public. As I have always worked amicably with the medical officer of health in his official capacity, and as I received no communication from him, I concluded he had decided to let the case drop On Saturday, June 4th, I was told in the street that the medical officer of health had gone to the court for an order to arrest my patient. I arrived at the court too late to give evidence. In the evening Mr. Butler called upon me. I had never spoken to or had any communication with him on this or any other matter before.

I should like to take this opportunity for apologising to Dr. Cayley for all the worry the case has been to him. It was too late on Saturday to write, so I simply wired to him asking him to see a case with me; but before the case was brought in to him, Mr. Butler and I explained to him that the magistrate had issued an order for the arrest of the child, on the evidence of medical men who had seen the child on two or three occasions only.

I am, Sirs, your obedient servant,
W. F. CLARKE, M.D., B.S. Lond.

P.S.—A bill has been circulated in the district, on which my name appears. I had no knowledge of or share in the publication of the document before copies were delivered at my door, and I have taken steps to stop its circulation.

Fulham, June 14th, 1892.

THE HOLY PLACES OF ARABIA.

To the Editors of THE LANCET.

SIRS,—The paper on the above subject, in your issue of the 14th ult., by my friend, Dr. John Wortabet of Beyrout, contains much information, both curious and uncommon. By a printer's error the town of Jidda (Jedda) appears as Tidda throughout the article. Several travellers besides those mentioned by Dr. Wortabet have visited and described the Arabian coastlands—e.g., Irwin, Niebuhr, Seetzen, and Wellsted; and Didier in 1856 reported a journey inland to Taif; but Mecca and Medina remain to be among the least known of the world's cities. Dr. Wortabet quotes Burckhardt's narrative. This intrepid man suffered severely at Mecca from dysentery, and at Medina from fever, which nearly proved fatal, and his death from the former disease in 1817, two years after his return to Egypt, must probably be ascribed to the Arabian visit. A member of our own profession, Robert Richardson, M.D., L.R.C.P. Lond., himself a traveller of no mean rank, happened to be at Cairo, and attended poor Burckhardt in his last illness.[1] When lately in Egypt I sought out Burckhardt's tomb. "The Turks will take my body, I know it," he had said when dying, for as a Mussulman he had lived, and he lies in a Moslem grave. Above is sculptured the full white turban, and below, in Arabic, are the words: "Sheikh Ibrahim, the Moslem, the English Traveller." Dying at thirty-three years of age, when on the eve of entering on his intended life work in Central Africa, Burckhardt left so rich a store of records from the mere preparatory journeys he had taken as to place him in the very first rank of Eastern explorers. As regards the number of pilgrims who visit Mecca, Mr. Wilfrid Blunt computed the "Haj" of 1880 at 93,000. Mr. John Ray, in 1693, quotes an author who speaks of 200,000. The Christian pilgrimage to Jerusalem towards Easter-time is not wholly unlike the Mohammedan in its sanitary aspects, as I can testify; but the numbers are much smaller, and the mortality is far less.

I am, Sirs, yours faithfully,
Finsbury-square, June 2nd, 1892. R. HINGSTON FOX.

THE ROYAL COLLEGE OF SURGEONS OF ENGLAND.

To the Editors of THE LANCET.

SIRS,—I note in your columns of to-day's issue, at p. 1330, that a report was approved and adopted by the Council containing a clause to the effect that it is impossible to grant even the mildest of the requests of the Association of Fellows—that for a common room—because the Council regard the Fellows as only a section of the Corporation. Surely this is an admission of what I have always contended, that the Membership gives the corporate existence, whilst the Fellowship is a mere academic distinction. Now comes the question: How is it that seats on the Council are confined "to the exclusive use of any section of the Corporation"? Permit me, in conclusion, to say that the action of the Committee of the Members' Association which I deprecate has nothing to do with the question of appeal. The abandonment of that policy was my own action, based on an opinion which I obtained, and which the Committee generously left me to pay for. My refusal to have anything more to do with them was partly explained by Mr. Ashton Ellis's reply, and is due partly to other matters which are slightly indicated by the nonsense written by Mr. W. G. Dickinson. I am, Sirs, yours faithfully,
Birmingham, June 11th, 1892. LAWSON TAIT.

ANÆSTHETICS.

To the Editors of THE LANCET.

SIRS,—After the discussions at the Gynæcological Society last week on anæsthetics, perhaps an account of the after-effects of nitrous oxide and ether on the patients operated on at the Chelsea Hospital for Women during this year may not be uninteresting. The results in 89 cases show no

[1] Richardson's Travels, vol. i., p. 161.

deaths attributable to anæsthetics. Apart from abdominal sections there have been 68 operations, averaging twenty-three minutes each, on patients averaging thirty-five years, gas and ether or ether alone being the anæsthetic used; 21 had no retching or vomiting, and the remaining 47 had each on an average not more than 3 attacks of vomiting, with a little retching. There have been 21 abdominal sections, averaging forty-five minutes each, patients' ages thirty-one years; of these, 18 have the exact number of times they vomited noted, being 4 4 or 2½ times for each patient; the remaining 3 were described as "a little," "very slight," and "not violent at intervals for three hours"; 11 had no retching; and, dividing the remainder into slight and severe, only 2 were noted as having severe retching. About 20 had ether alone, all becoming insensible without coughing, struggling, feeling suffocated, or showing distressing symptoms, the majority being unconscious in three or four minutes. Clover's inhaler, with Hooper's anæsthetic ether, is used, and as little gas and ether given as possible, the relaxation being satisfactory, and the operation can be commenced in two minutes; but I find it better to let them get more slowly under, and take five minutes for abdominal sections. Bronchitis was not set up by ether *de novo*, and a few patients who had coughs before operation were not much worse afterwards. All complained much for twelve to twenty-four hours of the smell and taste of ether, but not often of headache.

I am, Sirs, your obedient servant,

Belgrave-rd., S.W., June 13th, 1892. ANDREW FAUSSET.

RECTAL INJECTIONS OF SALT SOLUTION FOR HÆMORRHAGES.

To the Editors of THE LANCET.

SIRS,—Dr. Spencer's account in your last week's issue of cases treated by intravenous injections of salt solution in cases of grave hæmorrhage has induced me to again bring before the profession what I believe to be a very good substitute for it in an emergency—viz., simple injection per rectum. I published in THE LANCET of 1888 an account of a patient who was apparently dying from post-partum hæmorrhage, but whom I firmly believed owed her life to the rectal injections, the immediate effects of which were striking. Since the publication of that letter I have heard of a number of cases treated similarly. One of the obstetric assistants at University College Hospital told me he had saved two patients, and was much struck with its efficiency. In another case of excision of the jaw, where the patient was in a state of collapse, the treatment was very effectual, as also in a case of collapse from hæmatemesis. Personally, I have seen it repeatedly used in cases of large losses of blood at University College Hospital, where, instead of injecting only from four to six ounces of saline solution, from twelve to fourteen ounces of warm water were thrown into the rectum. Its value in such operations as amputation at the hip or excision of the upper jaw is unquestionable, but I have never seen any reference made to it either in the text-books or periodicals. Its value, however, is more particularly to the medical man attending midwifery cases, as how few practitioners carry the necessary apparatus for venous transfusion, and how difficult it is when the patient is throwing herself about (and perhaps losing blood all the time), and one is single-handed, to perform what is really a delicate operation, whereas by carrying the "salt" made up in powders ready for dissolving one can control the uterus while the nurse prepares the solution, and inject it without relaxing our attention to the *fons et origo* of the mischief. Whether simple water is as readily taken up by the emptied vessels of the rectum as saline solution I have no means of determining, but at all events the stimulating effects of the salts on the heart are by no means to be neglected. The smaller injections seem to me to be preferable, inasmuch as no risk is run of exciting the bowel to expel its contents, and the injection can be repeated every fifteen minutes until such time as the patient can retain liquids given by the mouth, when both means can be continued as long as necessary. Every practitioner and nurse being provided with a syringe, this plan has at least one good point—it can do no harm, and I am firmly convinced that in the majority of cases it will be markedly beneficial. I am, Sirs, yours faithfully,

RAINSFORD F. GILL, M D. Lond.

Adelaide-road, S. Hampstead, June 14th, 1892.

"STEELE *v.* SAVORY" FUND.

To the Editors of THE LANCET.

SIRS,—We beg to forward herewith a second list of subscriptions to the "Steele *v.* Savory" Fund, which includes several amounts previously omitted.

We desire to explain in answer to inquiries that the subscriptions now being acknowledged are those only which have been sent to the Treasurer of the Special Committee appointed in February last after the termination of the action. A "Guarantee Fund" was established on the commencement of the proceedings three years ago, towards which about £250 was received (some further contributions to this fund promised, but not then paid, have since been sent to the Special Committee and included in their first list). This amount was all expended during the progress of the action, but is allowed for in the bill of costs now delivered, from which it will be deducted. It will be seen that there is still a balance of about £1000 required, which would be easily obtained if every member who has hitherto taken an interest in College reform were to send a few shillings. We should like to take this opportunity of reminding our numerous local secretaries of the letter which we recently sent them, and we trust that they are acting upon it. We shall also be glad if those members of our association who have not yet paid their arrears of subscriptions will do so forthwith. We hope that these gentlemen will not put us to unnecessary trouble by delaying their remittances.

We remain, Sirs, faithfully yours,

JABEZ HOGG, W. G. DICKINSON, } Joint Hon. Secs.

June 14th, 1892.

SECOND LIST OF SUBSCRIPTIONS.

John Tweedy, F.R.C.S. (second donation)	£5	5	0
Dr. A. F. Holdsworth	4	4	0
Dr. G. H. Batterbury (Local Secretary)	3	3	0
Collected by Mr. H. A. Latimer (Local Secretary, Swansea)	2	16	0
W. J. Seward, M.B.	2	2	0
Dr. T. Curtis Denby	2	2	0
Dr. Chas. Taylor (second donation)	1	11	6
Jas. Somer	1	1	0
C. G. Woodd	1	1	0
M. J. Sturges, M.D.	1	1	0
Thos. Taylor	1	1	0
Clement Godson, M.D.	1	1	0
Thos. Wright	1	1	0
Thos. Walker	1	1	0
W. Bevan Lewis	1	1	0
Nath. P. Blaker	1	1	0
W. P. Lipscombe	1	1	0
Gordon Jones	1	1	0
Mrs. E. Garrett Anderson, M.D.	1	1	0
C. G. Brown	1	1	0
L. A. Barrow	1	1	0
Alf. T. Brett, M.D.	1	1	0
G. H. Broadbent	1	1	0
Alfred Harvey, M.B.	1	1	0
J. D. Harris	1	1	0
Jas. Coram	1	1	0
Francis Goolden	1	1	0
John Jackson	1	1	0
Collected by Mr. Robert Hicks, Ramsgate Local Secretary:—			
Dr. T. G. Styan	1	1	0
Dr. R. T. Bowden	1	1	0
Dr. J. B. Berry	1	1	0
Mr. C. Cotton	1	1	0
Mr. T. F. Raven	1	1	0
Dr. F. Brightman	1	1	0
Robert Hicks	1	1	0
J. R. Kingston	1	1	0
E. F. Neve	1	1	0
Dr. Royle	1	1	0
T. Smalles	1	1	0
P. H. Williams	1	1	0
Thos. Wright	1	1	0
Lennox Browne	1	1	0
H. D. Brock	1	1	0
Surg.-Lieut.-Col. J. B. Beamish	1	0	0
D. M. Williams	1	0	0
G. F. Jones	1	0	0
W. A. W.	1	0	0
Dr. Goldsmith	0	15	0
Surg.-Major Lyons	0	10	6
C. E. Abbott	0	10	6
Wm. Grove, M.D.	0	10	6
J. A. Rigby, M.D.	0	10	6
Seaton Pattison	0	10	6
J. H. Crisp	0	10	6
G. H. Case	0	10	6
Alfred Freer (second donation)	0	10	6
Henry Stear	0	10	6
Anon	0	10	6
F. W. Fry	0	10	6
Chas. Snape, M.D.	0	10	6
R. Alford, F.R.C.S.	0	10	6
T. B. Luscombe	0	10	6
A. Gibbings	0	10	6
S. Wyborn	0	10	6
Fred. Hunter	0	10	6
Colin G. Campbell	0	10	6
Chas. Andrews	0	10	6
A. H. Sandiland	0	10	6
Chas. Taylor, M.D.	0	10	6
E. G. Whittle, M.D.	0	10	6
J. Earp Burton	0	10	6
W. R. Rogers, M.D.	0	10	6
Joseph Harper	0	10	6
Mark Jackson, M.D.	0	10	6
J. R. Plant	0	10	6
J. R. Leeson, M.D.	0	10	6
J. H. Shearwood	0	10	6
L. C. E. Calthrop	0	10	0
Surg.-Col. C. H. Godwin	0	10	0
Jas. Haworth	0	10	0
Wm. Powell	0	10	0
C. A. Lee, M.D.	0	10	0
G. F. Rossiter, M.B.	0	10	0
G. Winter Rhodes	0	10	0
Rev. H. B. Wilder, M.R.C.S.	0	10	0
R. Burdett Sellers	0	10	0
J. Hall Redwood, M.D.	0	10	0
F. W Collingwood	0	10	0
Jas. Robinson	0	10	0
H. A. Lawton, M.D.	0	10	0
Clement Dukes, M.D.	0	10	0
W. A. E. Waller	0	10	0
Surg.-Capt. R. P. Bond	0	10	0
Surg.-Capt. G. M. H. Colman	0	10	0
G. W. Tait	0	10	0
S. H. Steel, M.B.	0	10	0
Surg.-Gen. R. Cockburn	0	10	0
Smaller sums	2	15	0
Errata in First List:—			
For "T. S. Grenson," read *T. S. Gimson*	1	10	0
For "Edwin H. Roe," read *Surg.-Major Roe*	2	2	0

BRITISH MEDICAL TEMPERANCE ASSOCIATION.

To the Editors of THE LANCET.

SIRS,—The twenty-sixth consecutive comparison between the Temperance and General sections of the United King-

dom Provident Institution has just been published, and many of your readers will desire to know whether it tallies with the rest. There is even a greater difference than in any previous year:—

	Expected.	Actual.	
Temperance	321	249	= 70·7%
General	386	425	= 110·1%

The totals of the twenty-six years are:—

	Expected.	Annual.	
Temperance	5177	3663	= 70·7%
General	7663	7459	= 97·5%

This result is consoling to abstainers, and gathers force with each successive year.—I am, Sirs, yours faithfully,

J. J. RIDGE,

Enfield. Hon. Sec., Brit. Med. Temperance Assoc.

LIVERPOOL.

(FROM OUR OWN CORRESPONDENT.)

Death under Chloroform.

AN inquest was held last week by the city coroner upon the body of a man who died at the Royal Infirmary during the administration of chloroform. The operation which it was intended to perform, though painful, was a comparatively minor one. Three of the house surgeons were present, one of whom was the administrator. Every precaution appears to have been taken, and every effort made to avert the fatal result; but without effect. The jury returned a verdict freeing all concerned from any blame. Deaths from chloroform in this city have been of late as rare as they were unfortunately frequent during 1891 and 1890. So far as can be ascertained, there have been no deaths this year or during the last two months of 1891, the last death having occurred on Oct. 15th, 1891.

Grant of Land for a Crematorium.

The Burial Board for the parish of Liverpool passed a resolution in favour of permitting the crematorium, which the new Cremation Society of Liverpool purpose erecting, to be placed upon a portion of the cemetery space at Anfield, which has not yet been used for burials. The parish of Liverpool, as represented by the rector, churchwardens, and members of the select vestry, have confirmed this resolution by a substantial majority. Thus, as suggested in THE LANCET some months ago, the two systems of disposal of the dead will be tried side by side, and opportunities will be afforded of comparing the two, each with the other. Without expressing any preference for either, the example thus set is worthy of being followed by other Burial Boards. Cemeteries exist for the disposal of the dead, primarily it is true by burial; but now that so many influential persons have shown themselves in favour of the disposal of their bodies by burning, it is only right that the opportunity for this should be afforded, subject to every needful safeguard. The recent cases of poisoning and the discovery by Dr. Stevenson of strychnine after burial and exhumation show how very necessary it is that some change should be made in our present system of death certification and registration. Before any body is destroyed by fire such inquiry should be made as would deter any from attempting to conceal foul play by this means.

Anonymous Correspondents and Coroners.

A Liverpool provision merchant, highly respected, died at his residence in Birkenhead rather suddenly on the morning of the 9th inst. The cause of death was apoplexy. This was certified to by the medical attendant who saw the deceased shortly after the attack and remained with him until his death. Mr. Henry Churton, the coroner, received a postcard from someone who preferred to be anonymous, informing him of the death, hinting that it was not a natural one, and that steps were being taken to hush it up. Mr. Churton caused full inquiries to be made by his officer and the local police, and, satisfied by them that the death was as it had been certified, declined to hold an inquest. It is to be hoped that the perpetrator of so cowardly an attempt to wound the feelings of surviving relatives and to bring discredit upon inquests by an attempt to hoax a coroner may be brought to justice.

St. James's Cemetery.

Dr. Hoffman, of the Burial Acts Department of the Home Office, attended at St. James's Cemetery on the 11th inst. and held an inquiry in the chapel, hearing various speakers in favour of closing the cemetery partially or completely. There were present Dr. Stopford Taylor (medical officer of health), Dr. Davidson, Dr. Bradshaw, Mr. Bickerton, and Mr. Lowndes. Mr. R. D. Holt, Mr. F. Smith, and Mr. Williamson (three members of the Corporation) were present, as well as the newly appointed chaplain, the Rev. R. F. Winter, and Mr. Charles Bird, the clerk to the cemetery, who has resided there for fifty years. Dr. Hoffman at the commencement of the proceedings explained that the inquiry, so far as he was concerned, was on sanitary grounds, and on sanitary grounds only. He had visited the cemetery that morning and had seen some open graves (which were being prepared for expected interments that or the next day) which he observed were very dry, though it had been raining that morning and more or less all the previous night. The clerk stated that the regulations and rules made with reference to burials in this cemetery were strictly enforced. The ground was dry, and water would not stay, though the cemetery was not drained. The graves were all either private or leased; the lowest price for any single grave was £5, including the first interment. The leased graves were sold for seven years, but no one was allowed to be buried in them, except the relatives of the person during that period. They were not leased again until fourteen years had expired. The depth was twelve feet, and coffins placed in vaults were always hermetically sealed either in lead or with stone slabs cemented together. The interments in 1891 numbered 451; 19 in vaults, 44 in new graves, and 318 in existing graves. The total number of interments in the cemetery since its opening in 1829 is 47,091. These are comprised in a space of 44,000 square yards of land, the greater portion of which is many feet below the level of the adjacent streets. The cemetery, in fact, though intramural, is, so to speak, sub-mural, being at the same time perfectly open. There is a very strong feeling among members of the profession, and some of the general public, against the breaking of any virgin soil in this cemetery (of which there remains a sufficiency to make many new graves), though it is generally admitted that to close the cemetery absolutely would be unreasonable and unjustifiable. Dr. Hoffman will, as usual, make his report later on.

Honours to Local Professors.

Professors Herdman and Gotch, having been elected Fellows of the Royal Society, were entertained at dinner at the Art Club on the 11th inst. by the Senate and members of the Liverpool University College.

June 14th.

NORTHERN COUNTIES NOTES.

(FROM OUR OWN CORRESPONDENT.)

The Weather and Health in the North.

WHIT-WEEK has been remarkable this year for its sudden change of temperature. Much as we are used to climatic variations, we rarely have such a record as we experienced this week. Up to Thursday we had a steady rise of temperature with bright sunshine. The heat was so great as to cause lassitude and depression, and, indeed, sunstroke, two fatal cases being recorded—one at Barnard Castle and the other at Penrith. But between Thursday night and Friday morning all was changed by a thunderstorm, north-east wind and rain, with a fall of temperature of about twenty degrees. This rapid change has given rise to much illness; susceptible people have been caught, and now there is a pretty general epidemic of tonsillitis astir in Newcastle and district. I have, however, a much graver matter to note—namely, a fatal case of small-pox in Newcastle, the particulars of which are as follows:—A sailor from North Shields presented himself amongst the casuals one day last week at the Royal Infirmary. As there appeared some doubt about the nature of his affection, he was taken into the house, and ultimately the case was diagnosed as hæmorrhagic small-pox, upon which he was removed to the special hospital set apart for such cases, where he died the next day. I believe that the sailor had come from some foreign port, but that

he had been for a short time a resident at the Sailors' Home at North Shields; but of course this will be investigated in due time, and no doubt every means will be taken to prevent the spread of the disease.

The Proposed New Infirmary for Newcastle.

A requisition has been presented to the Mayor of Newcastle asking him to call a public meeting of the inhabitants to consider the question of building a new infirmary to perpetuate the memory of the late Dr. Bruce, and his worship has consented to hold a meeting in the Guildhall on the 29th inst.

Carlisle: a New Sanitary Association.

An Association, called the North-Western Sanitary Association, has been formed in Cumberland to ensure the proper sanitary condition of dwellings, and to give the best practical advice as to the best means of remedying defects in the houses of the poorer classes. The Association is not formed for the purpose of profit, and any surplus after the payment of the officers will be set apart for the advancement of sanitary science, as may be decided at a general meeting of the subscribers.

Opening of the Bowes Museum and Park at Barnard Castle.

On Friday last the Bowes Museum and Park were formally opened and handed over to the public. The museum and park were founded by the Countess of Montalbo, a French lady, and wife of the late Mr. John Bowes, of Streatham Castle, whose family have been connected with the district for centuries, and whose present representative (the Earl of Strathmore) presided at the inaugural banquet. The Countess and her husband, who mostly resided in France, were enthusiastic art patrons and collectors, and about twenty-two years ago they decided to remove their collection to England, and fixed upon Barnard Castle for that purpose. She first purchased the land at a cost of about £100,000, and she lived to lay the foundation stone, but the building was carried on by Mr. Bowes, and endowed by him to the extent of £135,000. Certain legal obstacles prevented this bequest being fully carried into effect; but his estate being administered in Chancery, and a scheme being assented to by the Charity Commissioners, the intentions of the founders will be, it is expected, fully carried out in time. The building has cost about £200,000, is very handsome in itself, commanding fine views of the Yorkshire moors. The value of the contents of the museum is not known, but they have been insured against fire for £54,000. It was the foundation of the Bowes Museum which led to the alteration of the law of mortmain in 1871, which enabled any person to bequeath by will for public parks, schools, and museums (subject to restrictions) land not exceeding twenty acres to any one park, two acres for any public museum, and one acre for any one schoolhouse.

Sunderland.

At a meeting held at the Sunderland Infirmary last Friday to make arrangements for the forthcoming Hospital Saturday collection, the secretary stated that, during the twelve weeks that the miners' strike had lasted, the infirmary had lost £420 in working men's subscriptions alone, and the losses from other sources owing to the strike (added to the above) amounted to about £700. The foundation stone of the new Eye Infirmary at Sunderland is to be laid on July 2nd by Mrs. Backhouse.

Berwick: the late Dr. Maclagan.

A movement is on foot at Berwick to establish some memorial of the late Dr. P. W. Maclagan in recognition of the prominent position he so long occupied in the border town as a physician, philanthropist, and as a man of science. Meantime, a ward in the Berwick Infirmary has been called the "Maclagan Ward," in recognition of his long and faithful services to the institution.

Darlington.

At a late meeting of the Darlington sanitary authority it was decided that the Infectious Diseases (Notification) Act, 1889, should be put into force, and that it was to apply permanently to measles.

Lord Barnard has sent a gift of £100 to the Mayor of Darlington towards the relief of the distress in the town. Lady Grisell Baillie bequeathed £3000 to the Baillie Memorial Institute at St. Boswell's.

Newcastle-on-Tyne, June 15th.

SCOTLAND.

(FROM OUR OWN CORRESPONDENT.)

The Extension of Aberdeen University Buildings: Rearrangement of the Classes.

A MEETING of the Senatus of the Aberdeen University was held on June 11th, when the question of the rearrangement of the classes, rendered necessary by the University extension, was under consideration. Notices of motion had been given by Professor Stephenson, Principal Sir William Geddes, Professors Minto, Nicholson, Fyfe, and Milligan, anent the rearrangement. After discussion, the motion of Professor Minto, in an amended form, was carried by nine votes to six. The adopted motion runs:—"That since it is desirable, in order to provide proper facilities for study, that the classes included in the medical curriculum should be located together, and since it is desirable, for similar reasons, that all the classes included in the scheme of options for an arts curriculum should be located together, and since the science classes which are common to both cannot be divided between King's College and Marischal College without serious disadvantage, and ought to be all close to the other classes of any curriculum of which they form a part, it is, in the opinion of the Senatus, desirable for the full efficiency of the University, under the new ordinances, that authority should be obtained for having all the classes of arts, science, and medicine on the same site." The following motion also became the finding of the meeting:—By Professor Hay: "That the Senatus now resolve to recommend to the University Court that the proposed extension at Marischal College should be carried out on such lines as to permit of the object of the motion now carried being ultimately attained."

The Health of Aberdeen.

The death-rate for May was 17·87, as against 19·43 in May and 19·47 in June, 1891. The rate for May is, in fact, the lowest recorded for the last ten years at least. There were thirty-eight cases of scarlet fever, a decrease of eleven since April; and six cases of measles with one death, as against one case last month. Thirteen cases of measles from an adjoining parish were removed to the city hospital. Diphtheria shows a diminished record—seven cases with two deaths, as against ten cases with three deaths. Whooping-cough is also on the wane, 100 cases, as compared with 191 cases in April, being recorded.

Professor Struthers on the New Medical Education.

Dr. Struthers has written two very interesting articles on the new medical education, which are published in the *Aberdeen Daily Free Press*. He advocates less lecturing; especially he denounces the system of taking out a course more than once. He strongly recommends the further use of laboratories, and he deprecates the introduction of anatomy, except in its very elementary forms, before the first professional examination is passed.

IRELAND.

(FROM OUR OWN CORRESPONDENTS.)

Royal College of Surgeons.

A MEETING of Fellows will be held on Monday next, the 20th inst., to witness the election of examiners for the ensuing year. The rule that no candidate should be eligible for an examinership after a three years' tenure of office without a twelvemonth's interval has been repealed by the Council, who will elect examiners irrespectively of the time they may have served.

Mercer's Hospital, Dublin.

The expenditure last year exceeded the income of the same period by £791 9*s.* 3*d.*, the amount obtained by legacies coming to the paltry total of £33 12*s.* 11*d.* The institution is situated in one of the poorest parts of the city, and receives yearly a very considerable number of accidents of a serious nature.

Royal Medical Benevolent Fund Society of Ireland.

The annual meeting was held last week at the Royal College of Physicians. The committee in their report refer to the scanty support given by their professional brethren in the country, and point out that last year no less than five important counties did not contribute a single shilling to the fund. Thirteen *ad interim* applications for relief were considered since the last annual meeting, two of which were from medical men and eleven from the widows of medical men. This year grants to the amount of £995 have been distributed. The expenses of management amounted to £125, or about 9·8 per cent. of the income, which appears somewhat higher than it might be considering the number of honorary officers.

Royal Hospital for Incurables.

At a meeting of the board of governors held last Saturday J. J. Cranny, M.D Dub., was elected honorary consulting physician, and John V. Lentaigne, F.R.C.S.I., honorary consulting surgeon, to the hospital.

Children's Hospital, Temple street.

The committee intend to hold the annual garden fête and fancy fair on the 23rd inst. and following day.

The proposed Consumption Hospital at Ballynafeigh

At the last meeting of the Belfast City Council, held on June 1st, the report of the public health committee was brought forward, with an appendix submitted by the medical superintendent officer of health and the executive sanitary officer, who had been instructed to report on the plans of the new consumption hospital. In this document these gentlemen say they have inspected the plans and the suggested site, and, while there is no objection to the former, they do not think it is advisable to build any hospital for the treatment of disease in a populous locality. They say the infectious nature of tubercle is now generally admitted, and, though in other large cities hospitals for the treatment of that disease exist in populous districts, they do not think it would be wise or expedient to follow this example. They point out that, while the death-rate in Belfast during the past year amounted to 2·6 per 1000 from all zymotic disease, that from phthisis amounted to 4 per 1000. They recommend that a site should be chosen outside the city boundary, in a locality not likely to be largely built upon for some time to come. This report was adopted by the public health committee. On the same day an extremely influential deputation of the citizens of Belfast waited on the Council, urging them to allow the building of the new hospital to be proceeded with at once. One of the deputation, a well-known clergyman in Belfast, stated that before they acquired the site they carefully informed themselves as to whether any danger was likely to accrue to the inhabitants of the neighbourhood from the erection and maintenance there of such a hospital. They had visited the Brompton Hospital, London, the largest institution of the kind in the world, containing beds for 420 patients, and the authorities there simply laughed at the views expressed by the Belfast Health Committee as to the danger of the hospital to the surrounding population. When the matter was considered by the Council, on the motion of Mr. Stewart, the report of the public health committee was passed, with the excision of a paragraph and the whole of the appendix referring to the Consumption Hospital. This was thought to mean that the plans had passed; but I understand the subject was again before the public health committee, and is not yet finally settled. On June 13th a public meeting of the inhabitants of Ballynafeigh was held to protest against the proposed site as unsuitable, and the following, amongst other resolutions, was passed:—"That many of the most eminent medical men confidently assert that consumption is infectious, and although some still hold a different view, it is the decided opinion of this meeting that all risk of infection should be avoided." A deputation from the meeting was to appear on Wednesday, June 15th, before the City Council Improvement Committee. The question of the location of the new consumption hospital is exciting considerable discussion in Belfast, and the local papers are full of letters on the subject, especially on the point, "Is consumption infectious or not?"

The statue of Lord Ardilaun in St Stephen's-green Park, Dublin, will be unveiled next Saturday by the Lord Mayor.

June 15th.

PARIS.

(FROM OUR OWN CORRESPONDENT.)

The Prophylaxis of Tuberculosis.

I HAVE on more than one occasion communicated the results of the experiments conducted by MM. Hércourt and Richet on the protective properties of cultures of avian tuberculosis on dogs. On Dec. 5th, 1891, four dogs were inoculated with human tuberculous matter, two of these animals having previously been inoculated with avian tubercle. The first group of dogs died on Dec. 27th, each having survived exactly twenty-two days. Of the second group, one was destroyed on April 19th, 1892. This dog, which, despite an appearance of good health, had developed fungous periarthritis of both wrists, and arthritis of the hip-joint, was found post mortem to be affected with pulmonary tuberculosis lesions in which a sclerogenic process had made considerable progress. The other "vaccinated" dog is to-day alive and well, having in the six months since its inoculation gained flesh to the extent of three kilogrammes. This fairly conclusive experiment has since been repeated on a larger scale. On April 14th, 1892, four "unvaccinated" and four "vaccinated" (with avian tubercle) dogs were subjected to inoculations with equal quantities of human tubercle. The culture, forty-five days old, was injected into the saphenous vein, one cubic centimetre being the dose employed. The inoculation was repeated on two subsequent occasions. On the same day three other dogs, already "vaccinated," received a single dose of human tubercle, either in the peritoneal cavity or in the saphenous vein. The results are most striking, for the four "unvaccinated" animals succumbed on the eighteenth, twenty-first, thirtieth, and forty-fifth days respectively, whilst all their "vaccinated" comrades are still living, and apparently enjoying perfect health. May not these laboratory experiments be extended to the wards, and to our homes, and is it too bold a flight of imagination to picture children receiving at the hands of the family medical man one or more injections of avian tubercle as a prophylactic against that fell malady, tuberculosis, just as the onslaughts of variola are guarded against by the routine practice of "vaccination"? Time alone can teach us the value of such protective methods.

Election at the Académie des Sciences.

The vacancy in the ranks of the foreign associates of this body, caused by the death of Dom Pedro, ex-Emperor of Brazil, was at the last meeting, at which Carl Vogt, the eminent naturalist of Geneva, was present, filled up by the election of von Helmholtz of Berlin, the great physicist being awarded twenty-eight votes, as against nineteen recorded for M. van Beneden of Louvain. The other names submitted for selection were those of Newcomb of Washington, Nordenskjold of Stockholm, Weierstrass of Berlin, and last, but not least, our own Lister.

A Small-pox Epidemic at Nimes.

It is reported that small-pox has been rife at this town since July, 1891, and that no less than 150 persons have succumbed to the disease, 130 of these fatal cases having occurred during the five first months of this present year. It is pointed out that the town, which boasts a population of 70,000, possesses nothing in the shape of a system of disinfection, and that the sanitary board and their single inspector are not endowed with sufficient powers. Vaccination is so neglected that it is only owing to strong representations made by a local journal that the opening of a vaccination bureau thrice weekly was procured. It appears that a large proportion of the population is unvaccinated. The efficacy of revaccination is once more proved by the absolute immunity enjoyed by soldiers, the *employés* of the Paris-Lyon-Méditerranée Railway Company, and of such private firms who exact the observance of this precautionary measure by their workmen.

Paris, June 15th.

BERLIN.

(FROM OUR OWN CORRESPONDENT.)

The Inauguration of the Langenbeck House.

THE Langenbeck House was formally inaugurated on the 8th inst. The Emperor, who was at Kiel, was represented by his cousin, Prince Frederick Leopold. The large hall

was filled to the roof with the invited guests and the members of the German Surgical Society. The Empress was represented by a chamberlain. The Commandant of Berlin and other officers of rank, ex-Minister Delbrück, the officials of the Berlin Medical Society, the members of the Imperial Office of Health, and many eminent men of science, including Esmarch, Thiersch, König, Schönbarn, Bardenheuer, Mikulicz, Braun, Helferich, Küster, Lauenstein, Schade, Wagner, Bruns, Wölfler, Bramann, and Trendelenburg, were present. Langenbeck's family was represented by his son, Major-General von Langenbeck, his son-in-law, Major-General von Plessen, and his grandson, Lieutenant von Roon. After Prince Frederick Leopold had taken the seat of honour in front of the platform, Professor Bardeleben, as president of this year's Surgical Congress, addressed the assembly. He gave a history of the Langenbeck House, drawing special attention to the powerful aid of the late Empress Augusta. Prof. von Bergmann then spoke in terms of high praise of the building. He referred to the valuable gifts that had been bestowed on the house, especially the splendid Black Forest clock presented by the Empress Augusta's daughter, the Grand Duchess of Baden, and a portrait of Langenbeck presented by his daughter, the Countess Hardenberg. The band then played Beethoven's "The heavens are telling the glory of God," and the members of the Surgical Society and their guests inspected the house in all its parts.

The Twenty-first German Surgical Congress.

The twenty-first German Surgical Congress was opened at 1 P.M. on the 8th instant in the large hall of the Langenbeck House by the president, Professor Bardeleben. After some official preliminaries, Bruns of Tübingen spoke on the surgical importance of the new firearms. Especially at shorter distances an explosive effect takes place, not so bad, indeed, as that produced by the old rifles, when soft lead bullets were used, but still bad enough. Close shots produce extensive lacerations of the soft parts, and seriously splinter the bones. Often, however, this destruction is not externally visible—at least where the bullet has entered. The bullet never remained in the body at distances of less than 1200 metres, but fragments of the clothing were sometimes carried into the wound, and then, if bones were injured, generally remained at the place where the shot entered a bone. An important difference between the old lead bullet and the new steel-mantled projectile is that the latter does not at once change its form on entering the body. Such changes take place only when it has first passed through walls or rebounded from hard objects, and then the wounds are much more dangerous. Bruns showed pieces of wood penetrated by old and new projectiles. The channels produced by the old ones are short, and widen out conically immediately after the entry of the projectile, whereas those made by the new ones are longer, and uniform from beginning to end. Owing to the great penetrative power of the new projectiles, the death zone coincides with the range of the rifle. It is doubtful, however, whether the number of fatal wounds in war will be greater than hitherto. The fighting will be done at much greater distances, except where troops can avail themselves of very safe cover. Things which used to afford such cover no longer do so. At a hundred metres the projectile goes through four or five ranks of soldiers in close order, at 400 three or four, at 800 two or three. The psychical effect on the men will be different too. The experience that all the improvements of weapons have failed to increase the losses in war justifies the hope that this will continue to be the case. The surgeon's task will be in some respects lighter than before. The use of the probe and the extraction of bullets will be far rarer, and asepsis will be much more frequently attainable than it used to be. Even when the long bones are splintered, the slighter injury caused to the skin and the soft parts will render aseptic treatment easier. The experience of Russian and American surgeons in the recent Chilian war confirms this, and shows that the small bore rifle is a gain to humanity. The danger of fatal hæmorrhage is diminished, and the fact that the bullet's path through the body is in a perfectly straight line enables the surgeon to determine with certainty what parts are injured. On the other hand, it cannot be denied that the long range of the new rifle makes the removal of the wounded very difficult. The best immediate application is an absorbent aseptic bandage. The next speaker, Reger of Hanover, spoke of the effect of hydraulic pressure on the injured organs. The splintering of the long bones, he said, is due to the medullary substance being compressed by the impact of the projectile on the bone. He thought Bruns' description of the terrible effect of near shots exaggerated. Bruns' experiments proved nothing, for they were made on dead animals—i.e., on lax muscles and bones without fluid marrow. Reger believes that the percentage of fatal wounds must diminish with the calibre of the rifle. Messner dealt with the question whether the heat of the projectile suffices to kill all the germs attaching to it or caught up by it on its course, and answered it in the negative. Lauenstein of Hamburg recommended cleanliness on the part of the soldiers as the most important condition of asepsis, but many of his hearers were of opinion that in the filthy work of war cleanliness is impossible. Hanse of Berlin combated the opinion that, as the range of the new rifle is four kilometres, the bandaging places must be four kilometres distant from the line of fire. The range of the chassepôt was three kilometres, but the bandaging places in the French war were only 1700 to 1800 metres from the line of fire. The distance will now have to be from 2250 to 2400 metres, or at most 2500. At 1000 metres soldiers fire only at bodies of troops; at 2000 not at all. The carriages to which the wounded are borne must stand from 700 to 1100 metres from the line of fire of one's own troops, 1500 to 1600 from that of the enemy. This is the point at which the zone of less danger begins. The bearers, of course, work in the zone of greater danger, but they did so in 1870 too—indeed, their work was specially dangerous in that campaign, because the range of the needle-gun was much shorter than that of the chassepôt. Their loss was 6·6 per 1000. But, even supposing that the losses in the next war exceed those of the bloodiest battle in 1870 by 50 per cent., only 1158 bearers per army corps would be needed, for there were 772 then. In reality each corps now has 1168, including 200 musicians trained as bearers. The introduction of portable electric search-lights for use in the night is desirable. Bloodhounds might also be of use both at night and on covered ground by day. The total number of the lower ambulance officials in the German army is 45,000. Towards the close of the discussion a question arose as to the advisability of the preliminary closing of shot wounds by the bearers by suture or plaster. Langenbuch advocated this on the ground that most of the wounds will be aseptic, and that therefore primary healing will be attainable in most cases, while, in the contrary case, it will be easy to reopen them. König, Esmarch, Trendelenburg, and Thiersch opposed this view, maintaining that, owing to the entry of particles of clothing with the bullet, and to the uncleanliness of the sewing material and of the sewer's hands, the wounds will very often be by no means aseptic. Thiersch put an end to this debate by the dry remark, "We will keep the wounds open and close the discussion." The chairman took the hint and closed the meeting.

Berlin, June 13th.

Obituary.

THOMAS DAVIES-COLLEY, M.D., J.P.

WE regret to have to announce the death of Dr. Davies-Colley of Chester. So long ago as 1834 he took the M.R.C.S. Eng., and in 1835 the L.S.A., and then began practice in Foregate-street, Chester, in which city his father had been for some time a general practitioner. In a short time, however, he went to study in Edinburgh, where, in 1839, he obtained the M.D. degree. He was elected in 1854 honorary physician to the Chester General Infirmary, which position he held until the beginning of 1890, when he resigned and was appointed consulting physician. During the whole of this time he was most constant in his attendance at the hospital. Everything gave way to what he considered his first duty, attention to the patients under his care at the infirmary. Everything connected with the interests of the institution claimed his warm sympathy and intelligent support. In addition to his professional work he took an active part in the various philanthropic movements of his native city. He took much interest in the management of the Blue Coat Hospital, and was one of the trustees of the Blue Girls' School. He always manifested

much interest in archæological matters, and was part and parcel of the local Historical and Archæological Society, and was intimately connected with other scientific societies. Dr. Davies-Colley was one of the most modest and unassuming of men: he went quietly on his way, doing his duty consistently and doing good by stealth. He was on the Commission of the Peace for the city of Chester for more than twenty years. His wife's death preceded his own by only a few months. He, full of years, and having finished his work, passed quietly away on the 3rd inst., at his residence, Newton Cottage, near Chester, in his eighty-first year. He leaves behind him one daughter and four sons, one of whom is one of the surgeons at Guy's Hospital.

MEDICAL TRIAL.

A DISPUTED CASE OF SCARLET FEVER.

MEDICAL MEN AND THE NEW PUBLIC HEALTH ACT.

ON Saturday, the 4th inst., Mr. Cooney, the medical officer of health for the district of Fulham, applied to Mr. Curtis Bennett, sitting at the West London Police-court, for an order for the removal of a child, aged five years, named Emily Williams, from her parents' abode at 19, Prothsroe-road, Fulham. He certified that the child was suffering from scarlet fever, and produced a certificate from Mr. Robert Bruce, the Medical Superintendent of the Western Fever Hospital, who had seen the child that day, and who certified that it was suffering from scarlet fever, in addition to stating that there was room for it in the Fever Hospital. Mr. Haynes, solicitor, said he was instructed to oppose the granting of the application. After some hesitation the magistrate decided to hear evidence for and against the application; but when the case came again before him on the following Wednesday, he remarked that after a careful study of the Act he had come to the conclusion that he should not have allowed evidence to be given, but ought to have made an order for the removal of the patient on the certificate of the medical officer of health for the district, supported by the certificate of the Superintendent of the Fever Hospital to the effect that there was room for its reception. However, on Saturday evidence was given.

Mr. Cooney said that he was called to attend the child in his capacity as district medical officer to the Fulham Board of Guardians on the order of a relieving officer on May 19th. He then declared that it was suffering from scarlet fever, and sent for the ambulance from the Fever Hospital in order that it might be removed. When the ambulance came the mother of the child refused to allow it to be taken away, giving as the reason that another doctor had seen it and had said that it was not suffering from scarlet fever. When he saw the child it was in bed in a room where there was a mangle, the mother occupying two rooms only, and taking in laundry work, which was left for the purpose of being mangled. There were three women and two other children in the same room, and the upper part of the house was occupied by another family. He had seen the child again that day (June 4th) and the skin was peeling. Replying to Mr. Haynes, Mr. Cooney said that he did not make the application for an order for the removal of the child before, because he had been informed that two other medical men had seen the child and said it was not suffering from scarlet fever. He had waited for the first day when desquamation had set in before applying for the order. Dr. Clarke and Mr. Butler were the two medical men he had referred to as having seen the child. He was, however, convinced on May 19th that it was a case of scarlet fever.

Mr. Alfred George Wells was next called, and said that he went to see the child at Mr. Cooney's request on May 20th, and it was then suffering from bronchitis in addition to a doubtful case of scarlet fever. He had seen the child again on June 3rd, and it then showed unmistakable signs of scarlet fever.

Mr. Henry Joseph Butler was called by Mr. Haynes in opposition to the granting of the application. He said that he had seen the child, and in his opinion it was suffering from bronchitis, pleurisy, and a slight enlargement of the tonsils. He had seen the child on May 19th, on several occasions since, and finally on June 3rd (the day previously). He had not seen any symptoms of scarlet fever. There was no peeling and no dropsy. In reply to the magistrate, he said that one reason for saying that the case was not one of scarlet fever was that there was no rash. It was, however, possible to be scarlet fever without rash.

Mr. Curtis Bennett said he should make the order for the removal of the child, and in answer to Mr. Haynes's request, that he would grant an adjournment in order that other medical evidence might be called, he said that it would not be right to allow an adjournment for forty-eight hours, and thus give an opportunity for the child to infect the neighbourhood. The sanitary inspector, who went with a police officer to carry out the order the same afternoon, was informed when he reached the house that the child was not there, and the mother declared that she would rather "lose the last drop of blood" in her body than give up the child. Accordingly an application was made on Tuesday for a summons against the mother for penalties for disobedience of the order, and this was made returnable on the following day. When the case came before the Court on Wednesday, evidence was given to the effect that the mother at first told the officers that the child was out for a walk, that she then went with one of them to the house of Dr. Clarke, promising that if he said it was a case of scarlet fever she would give up the child; finding he was out she absolutely refused to give up the child, and finally declared that she did not know where the child was. Mr. Curtis Bennett at this stage expressed regret that he had allowed a discussion of the case when the application for an order was made on Saturday. No further evidence was at that stage called in support of the statement that the child was suffering from scarlet fever, but Mr. Haynes said that Dr. Cayley had been called in to see the child on Sunday morning, and had given an order for its removal to the Middlesex Hospital, of which he was physician, and to which no infectious cases were admitted. He also said that Mr. Butler and Dr. Clarke had seen the child constantly during the period elapsing from May 19th to June 3rd, but had never spoken to each other until five o'clock on Saturday, June 4th, after the magistrate had made the order for the removal of the child. He called

Dr. Berkeley, the house physician at the Middlesex Hospital, who said that the child Emily Williams was admitted by direction of Dr. William Cayley, the physician to the hospital, at two o'clock on Sunday afternoon, June 5th. The hospital was one for non-contagious cases only. He had examined the child, and found that it appeared to be in very good health. There were no signs or symptoms that it was suffering from scarlet fever, and there was nothing infectious about it. Replying to the magistrate, this witness said that he had been three months house physician at the Middlesex Hospital, and previously had been for six months house physician at the Brompton Hospital for Consumption. He had had no experience in attending scarlet fever cases. The child was in the general female ward, with fourteen other patients.

Dr. William Frederick Clarke said he first saw Emily Williams on May 19th. At that time he did not know that any other medical man was attending the child, and he had no knowledge that the medical officer of health for the district had seen the case. He did not find that out until he was stopped in the street and told that he was attending a case of scarlet fever that the medical officer had seen. He then denied that he was attending any case of scarlet fever. He attended the case up to May 28th. When he saw the child on May 19th it was suffering from a little bronchitis, enlarged tonsils, and a slight fever; beyond that there was nothing at all wrong with the child. He was not aware that it had at any time suffered from scarlet fever. It had not a single sign of scarlet fever except the fever common to all diseases of children. He had seen the child on June 4th, again on the 5th, and on the 7th. On the 4th the skin was perfectly normal; there was no sign whatever of peeling. There was a small rough patch on the chest, and if that spot was looked at it might have misled anyone. Asked as to the child's temperature, he said he had made no notes of the case, because he did not know it was important until it was brought into Court on Saturday, the 4th inst. He had had considerable experience in scarlet fever cases.

Mr. Butler was called again into the witness-box, and said he examined the child on Sunday with Dr. Cayley and Dr. Clarke. He did not find any trace of scarlet fever.

The case was then again adjourned until Friday. On this occasion Mr. Blanco White, the solicitor to the Fulham Vestry, appeared to support the summons, and Mr. A. J. David watched the case, as on Wednesday, for Mr. Butler and Dr. Clarke. Mr. Haynes defended Mrs. Williams.

Dr. William Cayley was the first witness called. He said he was consulting physician to the London Fever Hospital, of which he was until recently physician. At present he held the appointment of physician to the Middlesex Hospital, was lecturer there, and held other appointments, besides having qualifications. He first saw the child on Sunday at Dr. Clarke's house. He had been telegraphed to by Dr. Clarke, who asked him to meet him in consultation. He made a careful examination of the child, and was informed that it was a doubtful case of scarlet fever, but he did not discover any signs of the after-effects of scarlet fever at that time. There was no trace of peeling. Beyond enlargement of the tonsils he found nothing wrong with the child. It was a rickety child. He had the urine examined, and it was tested in his presence a few hours later. It was perfectly normal. He did not test the child's temperature at the time, but it was subsequently tested. He could not discover any trace of infectious disease. He recommended the admission of the child to the Middlesex Hospital. He had had considerable experience in fever cases, having been for twenty years physician to the Fever Hospital, but he could not trace anything in the child that would lead anyone to suppose that it had had scarlet fever. Asked as to the present condition of the child, he said that, beyond chronic enlargement of the tonsils and a little cough, there was nothing the matter with the child. He thought there was no necessity for the child to be sent to a fever hospital. Mr. Butler and Dr. Clarke were present when he examined the child on Sunday, and he was informed that an order had been made by the Court for its removal to the Fever Hospital, but he did not mention that in the letter he wrote to the medical officer of the Middlesex Hospital concerning the child's admission. He did not receive any fee for consultation. It would be contrary to the etiquette of the profession.

Dr. Sidney Phillips said he had been in the habit of seeing scarlet fever cases for twenty years, and at times as visiting physician to the London Fever Hospital as many as a hundred cases a day. He first saw this child on June 9th, and then found that it had rickets of some standing, chronic enlargements of the tonsils, one or two glands slightly enlarged, but it was in perfect health. He endeavoured in every way to find a trace of anything to denote that the child had had scarlet fever, but could not find anything. There was no peeling, but in cases where there was scarlet fever without rash there would be little or no peeling. In that particular case there was said to have been rash.

Mrs. Williams, the defendant, was then called to give evidence. She said that after Mr. Cooney had told her the child was suffering from scarlet fever she went to Mr. Butler, who saw the child within half an hour. He examined the child and said it was not a case of scarlet fever, but he declined to take it up as Mr. Cooney had seen the case. He told her, however, that she could call in any other medical gentleman if she liked. She went for Dr. Clarke, who saw the child the same day and continued to attend almost daily until May 28th, when he gave the child up as being well. It was because of what Dr. Clarke told her that she refused to obey the magistrate's order. It was true that she had a mangle in the same room that the child was. On the day after that on which Mr. Cooney first saw the child Mr. Wells called and saw the child. As he was going out he said that it was suffering from bronchitis and a feverish cold. She did not inform Dr. Clarke that Mr. Butler had seen the case; indeed she did not inform him of anything. Mr. Butler called several times afterwards to see how the child was getting on, but he had nothing to do with curing it. She told him that Dr. Clarke was attending the child.

Some friends and neighbours of the defendant were called to testify that they had seen the child and had not discovered any signs of scarlet fever. This concluded the case for the defence

Mr. Robert Marston Bruce, the Medical Superintendent of the Western Fever Hospital, was then called by Mr. Blanco White. He said he saw the child on the 4th of June, and found that it had some infection of the throat, enlarged tonsils, papillated tongue, slightly enlarged gland of the neck, some punctation on the leg, and indifferent branny peeling on the legs. He formed the conclusion that the child had recently had scarlet fever from these signs, and from the history of the case which he obtained from the medical officer of health. He had no doubt about the case, and considered it a proper case for isolation. There was at the hospital a child named Reuben Merrett, which when sent in was said to be suffering from diphtheria. On examination he found no positive evidence of diphtheria. It had sore-throat and enlarged tonsils. The certificate on which it was admitted was signed by Dr. Clarke. In cross-examination he said he did not remember a child being admitted to the hospital from Harwood-road on the certificate of Mr. Cooney. It was not any of the signs taken individually, but taking them collectively, that led him to certify that the child was suffering from scarlet fever.

Mr. Francis Woodhouse, the assistant medical officer at the Western Fever Hospital, said he visited the child at the Middlesex Hospital on June 9th and examined it. He also tested the urine, and it showed evidence of albumen. He could not come to any definite conclusion as to the case without knowing its previous history, but he should say that the child had had scarlet fever. He should not like to say that the child was definitely infectious, but he thought she ought to be isolated. Cross-examined, he said he would not swear that the child had had scarlet fever. He admitted the case of Merrett, to which reference had been made, and which was certified to be one of diphtheria. He found on examination that it was not suffering from diphtheria, but from tonsillitis; that would not, he thought, justify its admission to the hospital.

At the conclusion of the case Mr. Curtis Bennett delivered a long summing up from the bench. He said: "This is one of the early cases under the new Act of Parliament, which was passed by the Legislature after very great consideration, for which there was, I may say, a great amount of absolute necessity, in order to check if possible what has been rife—the spread and contagion of infectious diseases amongst the community, especially of large cities such as London. That Act was passed to give the medical officer of health, who finds a case in his district which, in his opinion, is of an infectious character, power to give a certificate to that effect. That certificate is to be backed up by a certificate showing his preparedness to receive the patient from the officer of one of the hospitals provided at the public expense for the reception of patients suffering from infectious diseases, such patients as this little child, where, as is admitted in this case by the solicitor for the defence, it is impossible to provide isolation. Now we come to a most extraordinary statement of facts, quite apart from the case itself. On Sunday last Dr. Cayley, without any knowledge of the previous history of this case, comes down from Wimpole-street to Fulham, and although he knows that an order for the removal of the child to a fever hospital has been made by this court and by myself, sitting here as one of the magistrates of the metropolitan districts, not only upon the certificate of Dr. Cooney, not only upon the certificate of Dr. Bruce, which went further than was necessary, because, in addition to stating that he had room for the reception of the patient, he certified that she was suffering from scarlet fever; but after a public inquiry held in this court, in the course of which Dr. Cooney, who was supported in his evidence by Dr. Wells, had been examined and cross-examined, yet notwithstanding all this that doctor sets the Act of Parliament at defiance, because he, forsooth, in his own individuality and in his own infallibility, chooses to say that this child is not suffering from an infectious complaint. What did he do? It was he who gave the order for the admission of the child—we have it in his own words—to the Middlesex Hospital. What examination had he made? He had not even taken the ordinary course of examining the urine at the time that the admission was given. You have that child sent to one of the institutions maintained by the subscriptions of the charitable public—an institution not set apart for infectious cases, but set apart by the public purse for the treatment of ordinary cases of illness amongst mankind. It had been, as he knew, certified by the medical officer of health for the district, by the doctor of the fever hospital of the district, sworn to in evidence by another medical man that this child was suffering from scarlet fever. He knew, too, that an order had been made for the removal of the child to the only place it could properly be removed to. Yet you have that man giving an order for the admission of that child into the Middlesex Hospital. I do not know what the authorities of the Middlesex Hospital will consider to be the proper course in regard to that. I do not know what the public who subscribe to maintain that institution will say with regard to it. Well, now, let us come to the facts in this case. This case Dr. Cooney saw for the first time on May 19th, and blame was attached to Dr. Cooney by the solicitor who appears for the woman who is the defendant in this case for not having taken steps after that examination earlier than June 4th. I agree with the observations that were made that Dr. Cooney ought to have gone on at once to have had that child removed to a proper place, if there was not a proper place at home. But that child was seen also on May 20th by Dr. Wells, who said he found it suffering from bronchitis and feverishness which he believed to be scarlet fever, but at that time it was not clear. I think, upon that, Dr. Cooney would have been justified in taking—and I think he ought to have taken—further action, and an order for that child to be removed should have been applied for. The mother sends for a doctor named Butler. He attends, but when he finds that the child has been certified by Dr. Cooney he says he will not attend at all. He was the only witness called here on Saturday to say that the child had not got scarlet fever. Dr. Clarke was called in, and he says: 'I did not know the child was being attended by Dr. Butler. I attended it *de die in diem*, and I had no notion it was being attended by any other doctor. I say, after having had it under my care, that I do not think it was suffering from scarlet fever.' Well, I do not know; one has heard something about medical etiquette; I was told that this was an honourable profession, and that these were men of honour. One has heard something about medical etiquette, that when one medical man attends a patient, no other medical man attends except in consultation. Let us take the evidence. Dr. Cooney says: 'I say distinctly on May 19th it is scarlet fever; I have no hesitation in saying it is scarlet fever.' Dr. Wells says: 'I examined it on May 20th, and there were many symptoms pointing to scarlet fever; on June 3rd it certainly had symptoms.' Dr. Butler swears that the child is not suffering from scarlet fever because it had not a rash. He shakes his head, but that is his evidence. When I put it to him in cross-examination, 'Can't you have scarlet fever without a rash?' he was bound to admit that it could be so. Dr. Phillips is called to-day. He gives evidence very fairly. He says: 'I was told that the child had had a rash.' I put it to him, 'Supposing there was a small rash, would not the peeling be almost imperceptible?' He says, 'Yes; but in this case I was told that the child had had a rash.' Dr. Clarke says: 'No rash, no scarlet fever.' Dr. Clarke says: 'The symptoms which I found were these: I found a patch, and that patch might indicate scarlet fever, but I do not *think* the child suffered from scarlet fever.' Dr. Clarke may shake his head, but that is the evidence. I will have it read if necessary. And no further would he go. There was no fear, no hesitation about Dr. Cooney. There is no doubt about Dr. Cooney. He is straightforward and honest. 'If I am wrong I am wrong, but there is my opinion: the child is suffering from scarlet fever.' That is straightforward, English, and honest; no backstair business, running in and out and hiding things from one another. Now, take Dr. Clarke. The furthest Mr. Haynes could get him to go, with all the coaching and all the persuasion, was, 'I do not think the child had scarlet fever.' Well, now, Dr. Clarke and Dr. Butler, until this case was in this Court, never took the slightest trouble about the case to examine whether it was scarlet fever or not. They never once, till after the case had been in Court two days, took a test of the urine. That is admitted by their evidence, from which they cannot get away. That is the state of facts about this case up till last Friday. Now, was this child suffering from scarlet fever? Mr. Bruce was not called to give evidence at this Court till to-day. I had his certificate, and although it was not necessary for him to go so far, and it was not evidence, I could not help seeing what he gave as the reason why this child should be admitted to the fever hospital. I said I would have here Mr. Bruce, the head of the fever hospital for the district comprising this large portion of West London. Mr. Bruce comes and says: 'I believe, I say, to the best of my opinion, notwithstanding all that I have heard from other people, that the child is suffering from scarlet fever, and I am of opinion that it is a fit case to be received into the institution for those cases.' Then we have another gentleman, introduced upon the scene with great pomp, and he was assistant to Dr. Cayley at the hospital. He gave his opinion that this was not a case of scarlet fever. What was it worth? Nothing! He said in cross-examination, 'I am a doctor at the Middlesex Hospital, where I have been three months.' I asked him, 'Have you had scarlet fever cases there?' His answer was 'No.' 'Have you ever attended a case of scarlet fever since you have been there?' 'No.' 'Have you ever seen a case of scarlet fever there?' 'Well, I may have seen one when a man came who thought he had got it and who went somewhere else." (Laughter.) 'Where were you before that?' 'I was six months'—'At a fever hospital?'—'No, at the Hospital for Consumption.' I asked him, this gentleman who was called as an expert, 'Have you ever attended a case of scarlet fever in your life?' 'No,' he answered. That is that man's evidence. I am of opinion, and it is perfectly clear, that it is not this poor woman who is fighting this case. If it were, far be it from me to add other troubles by inflicting a fine. (Applause, promptly suppressed.) But there are those behind this case who are doing this, but who have not the honesty to come forward and have not the honourableness to let their names transpire; but they do it in the dark, and upon these people must the pecuniary penalty fall. I have no doubt whatever that the order I made on Saturday was the only possible order which could be made by anybody occupying the position I hold, and which I have had the honour of holding for a number of years. This child was in a house where laundry work is taken in, where laundry work is brought to be mangled and is left there. That child is suffering from scarlet fever, and even if I should be wrong upon that, will any man dare to say that upon the evidence given in this court there is not reasonable ground for the belief that the child had scarlet fever? Then if there is that reasonable belief, where should the child be? As the assistant doctor says, isolation is the proper thing. Of course it is! And this Act of Parliament was passed to meet cases which are doubtful as well as those which are absolutely defined. One is surprised to find that a doctor of the age and experience of Dr. Cayley should, of his own motion, and when he knows that his brethren differ from him, have the child removed and sent away to a hospital where it is taken on a note of admission from Dr Cayley, where it is not isolated, but is placed in a public ward with women and people who are suffering from common complaints. If Dr. Cayley was so satisfied, and his sympathies went out, as with honesty and honour they might, to the poor, why did he not take the child to his own house? Or why, if he wished to show philanthropy, did he not, out of his own purse, provide a place where the child might have been isolated for a time, and not send it to a hospital at the expense of the public? No doctor has ever been guilty of more monstrous conduct. I impose a fine of £10, with two guineas costs."

Dr. Cayley: As you have censured me so severely I wish to say I did not ——

Mr. Curtis Bennett: I have your evidence you did. I cannot listen to you now.

Mr. Haynes gave notice of appeal against both the order and the conviction.

ROYAL MEDICAL BENEVOLENT FUND SOCIETY OF IRELAND.—**The following office-bearers have been elected for the ensuing year:—Presidents of the Royal Colleges of Physicians and Surgeons (*ex officio*), Central Committee: L. Atthill, Sir J. T. Banks, J. K. Barton, E. H. Bennett, A. H. Benson, J. H. Benson, Sir Charles Cameron, H. Gray Croly, F. Cruise, J. F. Duncan, T. Fitzpatrick, S. Gordon, T. Grimshaw, W. J. Hepburn, C. Joynt, G. Kidd, Henry King, J. Little, A. H. Marks, W. J. Martin, J. Moore, William Moore, G. Morrogh, J. Pollock, Sir George Porter, Bart., P. C. Smyly, Sir W. Stokes, and H. P. Truell. Hon. Secretaries: J. Moore, J. Finny. Hon. Treasurer Henry King. Acting Secretary: A. H. Benson.**

Medical News.

ROYAL COLLEGE OF SURGEONS OF ENGLAND. — **The following gentlemen, having passed the necessary examinations, and having conformed to the by-laws and regulations, were at the ordinary meeting of the Council on Thursday, the 9th inst, admitted Fellows of the College:—**

Hartley, John, L.R.C.P. Lond., Dunmow, Essex. Diploma of Member dated Jan. 22nd. 1879.
Anderson, G. R., L.R.C.P. Lond., Lambeth Palace-rd., Nov. 10th, 1887.
Pringle, James Hogarth, M.B. Edin, Glasgow, Aug. 2nd, 1888.
White, Edgar Ramsay, L.R.C.P. Lond., St. Albans, Aug. 2nd, 1888.
Cheatle, A. H., L.R.C.P. Lond., Carlisle Mansions, W., Nov. 8th, 1888.
Roberts, Charles Hubert, L.R.C.P. Lond., The College, St. Bartholomew's Hospital, Feb. 12th, 1889.
Stephens, Daniel Robert Porritt, M.B. Cantab, The College, St. Bartholomew's Hospital. July 11th, 1889.
Jordan, Henry M., L.R.C.P. Lond, Newport, Mon., Aug. 1st, 1889.
Elliott, Robert Henry, M.B. Lond., Girdlers-road, W., Nov. 14th, 1889.
Stevens, Cecil Robert, M.B. Lond., Honiton, Feb. 13th, 1890.
Cargill, Lionel Vernon, L.R.C.P. Lond., Savile-row, W., May 8th, 1890.
Fawcett, J., M.D. Lond., London Fever Hosp., Islington, May 8th, 1890.
Sandifer, Henry Stephen, L.R.C.P. Lond., Canonbury, May 8th, 1890.
Griffiths, Joseph, M.B. Edin., Cambridge, July 30th, 1891.
Rawlinson, Frederick Juland, L.R.C.P. Lond., Barnes, Nov. 12th, 1891.
Shearer, Donald F., M.B. Oxon., Lambeth Palace-rd., May 12th, 1892.
Ash, E. O., M.D. Lond., Donington-on-Bain, Lincoln. (Not a Member.)
Laws, William George, M.B. Edin., Newcastle. (Not a Member.)
Welsford, A. G., M.B. Cantab., Hampstead Heath. (Not a Member.)

Seven other gentlemen passed, but, not having attained the legal age of twenty-five years, will receive their diplomas at future meetings of the Council. Ten gentlemen were referred.

The following gentlemen, having previously passed the necessary examinations, and having now attained the legal age, were also admitted Fellows of the College:—

Abbott, Francis Charles, M.B. Lond., St. Thomas's Hospital. Diploma of Member dated Aug. 2nd, 1888.
Pickard, Ransom, M.B. Lond., Bishop's-road, N.E., Feb. 12th, 1889.

The following gentlemen, having passed the necessary examinations, were at the same meeting admitted Licentiates in Dental Surgery:—

Barnes, Arthur, Charing-cross and Dental Hospitals, Chester.
Barrett, Fredk. Walter, London and Dental Hospitals, Finsbury-sq.
Bascombe, R. E., Middlesex and National Dental Hospitals, Ealing.
Canton, H., M.R.C.S.E., Middlesex and Dental Hosps., Portland-ter.
Castellote, B. Alfred, Middlesex and Dental Hospitals, Clapham.
Clarence, Thomas Herbert, Charing-cross and Dental Hospitals, Southampton-row, W.C.
Curtis, E. A., Middlesex and Dental Hospitals, Blandford, Dorset.
Dodd, Fredk. L., Middlesex and Dental Hospitals, Tunbridge Wells.
Gilmour, William Henry, Liverpool and Dental Hospitals, Liverpool.
Goodridge, Alan, Charing-cross and Dental Hospitals, Dartmouth.
Harwood, E. W., Charing-cross and Dental Hospitals, Mortimer-st.
Hayward, Savill Henry, Charing-cross and Dental Hospitals, St. Ann's-terrace, N.W.
Herschell, Ridley, Middlesex and Dental Hospitals, St. Charles-sq.
Hughes, Geoffrey, Middlesex and Dental Hospitals, Worthing.
Lingford, John Charles, Manchester, Brunswick-terrace, Leeds.
Miller, Ernest Arthur, Middlesex and Dental Hospitals, Westminster.
Owen, William Gladstone, Birmingham, Edgbaston.
Pearse, A. S., Charing-cross and Dental Hospitals, Tunbridge Wells.
Phillips, Howard, Charing-cross and Dental Hospitals, Worcester-park, Surrey.
Sewill, J. S., M.R.C.S.E., Liverpool and Guy's Hospitals, Wimpole-st.
Smith, Edward F., Charing-cross and Dental Hospitals, Brixton-road.
Spokes, Peter Sidney, M.R.C.S.E., University College and National Dental Hospitals, Queen Anne-street.
Stoner, Harold B., Guy's Hospital, The College, Guy's Hospital.
Sykes, James Hall, Manchester, Dardsley, Lancs.
Tanner, Frank Leopold, Manchester, Oxford-road, Manchester.
Trott, Frederick Thos., Charing-cross and Dental Hospitals, Exeter.

Sixteen candidates were referred.

At an ordinary meeting of the Council of the College on June 9th, the following gentlemen were elected Examiners:

First Examination.

Elementary Anatomy.—J. Stanley Boyd, M.B. Lond., F.R.C.S. Eng., Charing-cross Hospital; William Frederick Haslam, F.R.C.S. Eng., Queen's College, Birmingham; Bilton Pollard, M.D. Lond., F.R.C.S. Eng., University College Hospital; James Ernest Lane, F.R.C.S. Eng., St. Mary's Hospital; Louis Albert Dunn, M.B. Lond., F.R.C.S. Eng., Guy's Hospital.

Elementary Physiology.—W. G. Spencer, M.B. Lond., F.R.C.S. Eng., Westminster Hospital; John Rose Bradford, M.D. Lond., M.R.C.S., University College Hospital.

Elementary Biology.—Frank E. Beddard, M.A. Oxon., Guy's Hospital; T. W. Shore, M.D. Lond., M.R.C.S., St. Bartholomew's Hospital.

Second Examination.

Anatomy.—J. N. C. Davies-Colley, M.B. Cantab., F.R.C.S. Eng., Guy's Hospital; William Anderson, F.R.C.S. Eng., St. Thomas's Hospital; George Danser Thane, M.R.C.S., University College Hospital; Alfred Henry Young, F.R.C.S. Eng., Owens College.

Physiology.—Vincent Dormer Harris, M.D. Lond., F.R.C.P. Lond., M.R.C.S., St. Bartholomew's Hospital; William D. Halliburton, M.D. Lond., M.R.C.P. Lond., M.R.C.S., King's College Hospital; D'Arcy Power, M.B. Oxon., F.R.C.S. Eng., St. Bartholomew's Hospital.

Third Examination.

Midwifery.—Walter S. Griffith, M.D. Cantab., F.R.C.S. Eng., M.R.C.P. Lond., St. Bartholomew's Hospital; Peter Horrocks, M.D. Lond., F.R.C.P. Lond., M.R.C.S., Guy's Hospital; George Ernest Herman, M.B. Lond., F.R.C.P. Lond., F.R.C.S. Eng., London Hospital; William Duncan, M.D. Brux., F.R.C.S. Eng., M.R.C.P. Lond., Middlesex Hospital.

First Professional Examination for the Fellowship.

Anatomy.—William Henry Bennett, F.R.C.S. Eng., St. George's Hospital; Frederick Treves, F.R.C.S. Eng., London Hospital; A. Pearce Gould, M.B. Lond., F.R.C.S. Eng., Middlesex Hospital; George Henry Makins, F.R.C.S. Eng., St. Thomas's Hospital; W. Bruce Clarke, M.B. Oxon., F.R.C.S. Eng., St. Bartholomew's Hospital.

Physiology.—John Barlow, M.D. Ed., F.R.C.S. Eng., St. Mungo's College, Glasgow; Benjamin Thompson Lowne, F.R.C.S. Eng., Middlesex Hospital; Cuthbert H. Golding-Bird, M.D. Lond., F.R.C.S. Eng., Guy's Hospital; William Stirling, M.D. Edin., Owens College.

Public Health.—Sir George Buchanan, M.D. Lond., F.R.C.P. Lond., University College Hospital; George Turner, M.B. Cantab., L.R.C.P. Lond., M.R.C.S., Guy's Hospital.

UNIVERSITY OF DUBLIN. — **(The Tercentenary Honorary Degrees.)—On Tuesday there was a meeting of the Senate to consider graces proposed to be conferred in connexion with the approaching tercentenary celebration. When Professor Burdon Sanderson's name was mentioned some objection was made because it was alleged he was a vivisectionist, but after a short discussion the grace was passed. The following is a list of those who will receive the degree of Doctor of Medicine and the degree of Doctor of Sciences on July 6th:—**

Doctor of Medicine.—H.R.H. Duke Charles of Bavaria; John Shaw Billings, Washington; Thomas Byrant, President, R.C.S. Eng.; Sir Andrew Clark, Bart., President, R.C.P. Lond.; Adolf Gusserow, Berlin; Jonathan Hutchinson, London; Prof. Grainger Stewart, Edinburgh.

Doctor of Sciences.—Prof. Burdon Sanderson, Oxford; Prof. Michael Foster, Cambridge; Prof. Ludimar Hermann, Königsberg; Sir G. M. Humphry, Cambridge; Prof. Julius Kellman, Basel; Prof. Macalister, Cambridge; Prof. Richet, Paris; Sir Wm. Turner, Edinburgh; Wilhelm Waldeyer, Berlin; Rev. Prof. Benney, Cambridge; Othniel Caleb Marsh, Yale College; Rev. W. Dollinger, London; Sir A. Guikie, London; Baron Adolf Nordenajold, Sweden; Abbé Renard, Belgium; J. Hall Gladstone, London; G. D. Liveing, Cambridge; Lord Rayleigh, Cambridge and London; Prof. Thompson, Cambridge; Prof. Thomas Thorpe, London; Prof. W. Tilden, Birmingham; Francesco Brioschi, Milan; Paul Gorden, Erlangen; Prof. Luigi Cremona, Rome; James Whitbread Glaisher, Cambridge; Ed. Routh, Cambridge; G. H. Darwin, Cambridge; Simon Newcomb, Washington; Isaac Roberts, Sussex; and F. Tisserand, Paris.

FISH SEIZED IN LONDON MARKETS.—**During the past month fifty-one tons of fish were seized at Billingsgate as unfit for human food. The weight of fish delivered there in the month was 12,610 tons. At the Shadwell market. 2 tons 13 cwt. were seized out of a delivery of 1481 tons.**

LYTHAM COTTAGE HOSPITAL AND CONVALESCENT HOME.—**The twenty-sixth annual report for the past year testifies to the increasing usefulness of the institution. Twenty-six more patients were admitted than in 1891. The year's receipts from patients were £171 15s., and the total expenditure £415 12s. Local patients are admitted at a nominal charge, and the committee rely almost entirely upon the annual subscriptions and donations to maintain the work of the institution.**

LITERARY INTELLIGENCE.—**In commemoration of the opening of the Langenbeck House at Berlin last week, our enterprising contemporary the *Deutsche Medicinische Wochenschrift* (No. 23, June 8th) fills its columns with articles of surgical interest. First of all Dr. E. v. Bergmann gives an account of the foundation and objects of the new institution, Professor Czerny writes on the Surgery of the Gall-bladder, Dr. F. Trendelenburg on Vesico-vaginal Fistula, Dr. M. Schede on the Surgical Treatment of Peri-typhlitis, Dr. H. Kümnell on the Operative Treatment of Epilepsy, Dr. A. Barth on Nephrectomy, Dr. Roth on the occurrence and recognition of Vesical Hernia, Dr. A. Bier relates five cases of Abdominal Surgery, including a case of excision of an intussusecepted bowel, which, however, terminated fatally, Dr. K. A. von Bardeleben speaks strongly in favour of Bismuth as an application in the treatment of Burns, Dr. O. v. Büngner discusses the treatment of Fracture of the Clavicle, describing a new and simple form of bandage, Dr. E. Busch relates a case of Complicated Fracture of the Femur. There is also a *feuilleton* on the History of Military Surgery (15th to 17th centuries) contributed by Dr. Wolrendorff; whilst the reviews, reports &c., all have a surgical bearing.**

WE regret to learn that M. Pasteur, who is at present resting at Villeneuve l'Etang, is very unwell.

MEDICAL MAGISTRATE. — Mr. Charles William Browne, M.R.C.S., L.S.A., of Middlebury, South Africa, has been appointed a justice of the peace for the districts of Rouxville and Wepener.

THE CORBETT HOSPITAL, STOURBRIDGE.—It is stated that Mr. W. O. Foster of Apley has promised £1000 to the endowment fund of the hospital Mr. John Corbett, M.P., is founding for the Stourbridge and Brierley-hill district.

EDINBURGH MEDICAL MISSION.—The late Mrs. Sanson of Hawthorn Brae bequeathed the villa and grounds of Hawthorn Brae at Duddington to the Edinburgh Medical Missionary Society, for a convalescent home, to be known as "The Hawthorn Brae Convalescent Home." Mrs. Sanson endows the home with the residue of her estate, estimated at £8000.

ST. VINCENT'S HOSPITAL, DUBLIN.—The following prizes have been awarded at the termination of the Sessional Examinations recently held:—Senior Class: Bellingham Medal in Clinical Medicine—James P. Marnell. O'Ferrall Medal in Clinical Surgery—James P. Barrett. Third year's Class: Prize—John R. O'Brian. Junior Class: Clinical Prizes—John H. Davys and Patrick F. Morrissey (equal).

EAST LONDON HOSPITAL FOR CHILDREN, SHADWELL.—On Saturday, the Duchess of Portland opened a new wing for out-patients of the East London Hospital for Children and Dispensary for Women, Glamis-road. The need of this addition has been long felt. Besides the extra accommodation for out-patients, there is now a new dispensary, and over it ample sleeping accommodation is provided for the nurses. The outlay has been about £8000.

NEW EUROPEAN GENERAL HOSPITAL, ADEN.—This hospital, at Steamer Point, Aden, was opened on May 2nd by Brigadier-General J. Jopp, the political resident. The new buildings comprise the men's hospital, a pavilion for women and children, a pavilion for mental cases, an observation hospital, a native hospital, and quarters for the staff and servants, each in a separate building. The total outlay has been 120,000Rs., of which 20,000Rs had been contributed by the Aden Port Trust, representing the shipping interest, and 20,000Rs. by the admiralty, on account of naval patients. The yearly expenditure is 15 000Rs. Against this is to be placed a sum, approximately, of 3500Rs. received from in-patients.

THE GENERAL PRACTITIONERS' ALLIANCE. — A meeting of the Council of the above Society was held at the offices, 11, Adam-street, Strand, on Monday last, Mr. George Brown, president, in the chair. It was resolved that the annual general meeting of the Alliance be held at the Council Chamber, Exeter Hall, Strand, on the 29th inst., at 3.30 P.M. Dr. J. W. J. Oswald, of Kennington road, S.E., was nominated for election as president of the Alliance for the ensuing twelve months. It was also unanimously resolved that the best thanks of the Council be given to Sir Albert Rollit, M.P., for his support to the application made on behalf of the Council for the appointment of a general practitioner to serve on the Royal Commission on the proposed Gresham University.

PRESENTATIONS. — At a recent meeting of the "John Hervey" Lodge of Freemasons, No. 1260, a silver salver was presented to Mr. Jabez Hogg, M.R.C.S., who had been for over twenty years Treasurer of the Lodge. The salver bore the following inscription:—"Presented to P. M. Bro. Jabez Hogg, P.G.D., and one of the founders of the John Hervey Lodge of Freemasons, No. 1260, by the Members of the Lodge as a mark of their affectionate esteem for him and to testify their appreciation of the services rendered by him for so many years as Treasurer of the Lodge. June 1892."—A valuable "Carved Oak English Chime Clock" and carved Bracket to match, bearing an inscription, together with a set of massive Entrée Dishes, were presented to Dr. Worthington on Saturday, the 11th inst., by many of his patients upon the occasion of his leaving Sidcup for Bournemouth. Dr. Worthington had been in practice at Sidcup for many years and had enjoyed the confidence of a wide circle of friends.—Dr. James Hitchcock, of Macduff, has been presented with a case of laryngoscopic instruments and a purse of sovereigns by the members of the Macduff Ambulance Class.

MEDICAL NOTES IN PARLIAMENT.

Army Medical Staff.

IN the House of Commons on Monday, on the vote of £290,100 for medical establishments, Dr. Farquharson referred to the use of titles by medical officers in the army, and asked whether the Secretary for War could not see his way to grant the use of compound titles to army medical officers who were practically on the Reserve list. He also asked the right hon. gentleman to consider the grievance felt by those officers in having their term of foreign service lengthened from five to six years, a circumstance which was found to be detrimental to health. He should also like to see the medical officers in the army granted certain periods of leave for study purposes.—Dr. Tanner had no sympathy with the cry of army medical officers for titles. He thought that those officers ought to be proud to be known as doctors, without any other military title attaching to them. He called attention to what he described as the disreputable condition of the army hospitals at Aldershot, where there was no hospital for infectious diseases.—Mr. Brodrick said that very considerable alterations were going on at Aldershot at present, and that the brick buildings were being completed as quickly as the contractors could proceed with the work. The authorities would welcome the moment when the wooden huts were discontinued and the hospital removed to the new buildings. No general officer commanding the troops had ever pressed on the work with such energy and zeal as Sir Evelyn Wood had displayed. With regard to the attendance of officers at medical schools on their return from foreign service, the authorities were quite prepared to consider whether arrangements could not be made to that effect. He could not enter into the subject of compound titles at present. The object of these titles was to give medical officers proper authority and status in the regiments to which they might be attached, or in a position in which they might be placed, and there was, he thought, no precedent for giving to officers subsequent to their retirement the same advantages as were given to officers on the active list. Sir F. Fitzwygram thought that some arrangement might be made by which medical officers could be given six months' leave on full pay to attend some medical school. The vote was agreed to.

Recruiting in London.

On Tuesday, Dr. Farquharson asked whether it was true, as stated in the *Irish Times* of May 30th and the *Army and Navy Gazette* of June 4th, 1892, that recruits rejected at other stations had proceeded to a large London recruiting station and been immediately accepted there, and that a medical officer had been recently removed from his post, as examiner of recruits, for not working in harmony with his superior officers by declining to pass into the ranks recruits who, in his opinion, were quite unfit for the service; and if so, whether this officer's removal was carried out with the approval of the Secretary of State.—Mr. Brodrick: The statement that recruits refused at some stations have in some cases gone to others and have been admitted is true in the case of London, and of other stations also, because medical officers, like other people, sometimes differ in opinion. The medical officer in question has not been relieved of his duties for the reason stated in the question; but the Secretary of State is, at the present time, personally looking into all the facts of the case which had not previously been examined by him.

Insurance Companies and Prison Records.

In the House of Commons on Thursday, Mr. Patrick O'Brien asked the Home Secretary whether it had come to his knowledge that a man lately discharged from Portland Prison applied to the governor for certain information from the medical record at Portland concerning his health during the last two years of his imprisonment there; whether he was aware that the information asked for was required by an insurance company before the man could have his life insured for the benefit of his family; and whether, under the circumstances, and as the information could only be supplied by the prison doctor under whose care the man was, he would cause the governor to give it.—Mr. Matthews replied that he was aware of the case. He had given directions to the medical officers to give any information in their possession to any insurance company that might apply for it.

The Yeomanry Committee.

In answer to Viscount Ebrington, Mr. Brodrick said that the recommendations of this committee had been under the consideration of the Treasury. Speaking generally, the Secretary of State for War was prepared to carry out the recommendations of the committee.

Queen's College, Belfast.

In answer to Dr. Tanner, the Attorney-General for Ireland stated that no application for a summer session in anatomy at this College had been made, nor was there any necessity for such a session.

Emanuel Hospital, Westminster.

The Attorney-General (Sir Richard Webster), in reply to Mr. William Lowther, said that after most carefully considering the whole of the evidence brought before him and given at the local inquiry, and personally inspecting Emanuel Hospital, he had come to the conclusion that, in the interest of the charity, it was not possible to maintain the whole of the existing buildings.

Appointments.

Successful applicants for Vacancies, Secretaries of Public Institutions, and others possessing information suitable for this column, are invited to forward it to THE LANCET Office, directed to the Sub-Editor, not later than 9 o'clock on the Thursday morning of each week for publication in the next number.

ALLARDICE, WM. C., M.B., C.M. Glasg., has been appointed Junior House Surgeon to the Macclesfield General Infirmary, vice Macleod, resigned.

BINDLOSS, E. F., L.R.C.P. Lond., M.R.C.S., has been appointed Medical Officer for the Wimpole Sanitary District of the Caxton and Arrington Union.

CHEYNE, W. S., M.D. Aberd., C.M., has been appointed to the Medical Charge of the Royal Artillery at Aberdeen.

COLMAN, WALTER S., M.B., M.R.C.P., has been appointed Registrar and Pathologist to the Hospital for Sick Children, Great Ormond-street, vice C. J. Arkle, M.D., resigned.

CUPPAGE, W. B., M.D., M.Ch. Irel., has been appointed Medical Officer for the Snawbury District of the Wem Union, Salop.

DE MONTMORENCY, H. F. W., L.R.C.P., L.R.C.S.Edin., L.F.P.S Glasg., has been appointed Medical Officer for the Appleby Sanitary District of the East Ward Union.

DEVEREUX, W. C., L.R.C.P. Lond., M.R.C.S., has been appointed Acting Honorary Surgeon to the Rural Hospital, Tewkesbury.

GILL, J. W., L.R.C.P. Lond., M.R.C.S., has been appointed Medical Officer for the Eighth Sanitary District of the Liskeard Union.

GILLIES, P. H., M.B., C.M. Edin., has been appointed Surgeon to the Easdale Quarries, Oban, N.B.

IRONSIDE, J., M.B., C.M. Aberd., has been reappointed Parochial Medical Officer for Garvock.

MACDIARMID, R. C., M.B., C.M., D.P.H Glasg., has been appointed Medical Officer to Messrs. Barclay, Curle, and Company's Workmen, Whiteinch.

MACLEAN, EWEN J., M.D., C.M. Edin., has been appointed Resident Medical Officer to the Chelsea Hospital for Women, vice Dr. Drummond Robinson.

MACLEOD, A. L., M.A., M.B., C.M. Glasg., has been appointed Senior House Surgeon to the Macclesfield General Infirmary, vice Rees, resigned.

OPIE, E. A., M.B. Durh., M.R.C.S., has been appointed Medical Officer for the Second (B) Sanitary District of the East Preston Union.

O'SULLIVAN, PATRICK T., M.B., B.Ch., B.A.O. (Roy. Univ. Irel.) L.A.H. Dub., F.C.S., has been appointed House Surgeon and Apothecary to the South Charitable Infirmary and County Hospital, Cork.

RIDDELL, J. S., M.B., C.M. Aberd., has been appointed, *pro tem.*, Medical Officer, Oldmachar Parochial Board, vice R. J. Garden, resigned.

ROWLEY, C. O., M.R.C.S., has been reappointed Medical Officer for the Second Sanitary District of the Barnsley Union.

SLATER, H., L.R.C.P. Lond., M.R.C.S., has been appointed Medical Officer for the Northern Sanitary District of the Bideford Union.

SMITH, JAS. S., L.R.C.P., L.M. Edin., M.R.C.S., has been appointed Medical Officer for the Tavistock Sanitary District and the Workhouse of the Tavistock Union.

TAWSE, G. W. H., M.B., C.M. Aberd., late House Surgeon to the Royal Infirmary, Aberdeen, has been appointed Junior Assistant Medical Officer to the Garlands Asylum, Carlisle, vice P. H. Gillies, M.B., C.M. Edin.

WALFORD, R. M., L.R.C.P. Lond., M.R.C.S., has been appointed Medical Officer for the Shirland and Higham Sanitary District of the Chesterfield Union.

WILLEY, C. H., M.D., D.Sc. (Public Health) Edin., M.R.C.S., has been appointed Honorary Medical Officer to the Sheffield Children's Hospital.

Vacancies.

For further information regarding each vacancy reference should be made to the advertisement.

BELGRAVE HOSPITAL FOR CHILDREN, 79, Gloucester-street, S.W.—House Surgeon.

BELGRAVE HOSPITAL FOR CHILDREN, 79, Gloucester-street, S.W.—Dental Surgeon.

BRADFORD EYE AND EAR HOSPITAL.—Special Assistant Surgeon. Honorarium 100 guineas per annum.

BRIDGNORTH AND SOUTH SHROPSHIRE INFIRMARY.—House Surgeon. Salary £80 per annum, rising £10 per annum to £100, with board and lodging in the Infirmary. (Apply to the Honorary Secretary, 22, St. Mary's-street, Bridgnorth.)

CHILDREN'S HOSPITAL, Birmingham.—Resident Medical Officer. Salary £80 per annum, with board, washing, and attendance in the institution.

CHILDREN'S HOSPITAL, Birmingham.—Assistant Resident Medical Officer. Salary £40 per annum, with board, washing, and attendance in the institution.

DERBY BOROUGH ASYLUM.—Assistant Medical Officer. Salary £100 per annum, with board and washing.

DENTAL HOSPITAL OF LONDON, Leicester-square, W.C.—Assistant Dental Surgeon.

EVELINA HOSPITAL FOR SICK CHILDREN, Southwark Bridge-road, S.E.—Physician to Out-patients.

GUEST HOSPITAL, Dudley.—Locum Tenens for Resident Medical Officer. Terms two guineas a week and railway fare.

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, Brompton.—Resident House Physicians.

LEICESTER UNITED FRIENDLY SOCIETIES' MEDICAL ASSOCIATION, 114, High Cross street, Leicester.—Second Medical Officer. Salary £200 per annum, with midwifery fees.

LIVERPOOL DISPENSARIES, Leith Offices, Moorfields, Liverpool.—Two Assistant Surgeons. Salary £80 per annum each, with apartments, board, and attendance.

MALLING UNION, West Malling.—Medical Officer and Public Vaccinator for the Second District of the Union. Salary £140 per annum, with extra fees as allowed by Orders of the Local Government Board.

PUBLIC HOSPITAL AND DISPENSARY, Sheffield.—Assistant House Surgeon. Salary £50 per annum, with board, lodging, and washing.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—Professors and Lecturers.

ROYAL SOUTH HANTS INFIRMARY, Southampton.—Assistant House Surgeon. No salary. Board and rooms provided.

ROYAL UNITED HOSPITAL, Bath.—Resident Medical Officer. Salary £100 per annum, with board and lodging.

ST. THOMAS'S HOSPITAL MEDICAL SCHOOL, London.—Obstetric Tutor. Salary £50 per annum.

SWANSEA HOSPITAL.—Resident Medical Officer. Salary £100 per annum, with board, furnished apartments, coals, gas, laundress, and attendance.

VICTORIA HOSPITAL FOR CHILDREN, Hull.—Resident Medical Officer. Salary £50 a year, with board, rooms, and washing.

WARNEFORD HOSPITAL, Leamington.—House Surgeon. Salary £100 per annum, with board, lodging, and washing.

WOLVERHAMPTON AND STAFFORDSHIRE GENERAL HOSPITAL, Wolverhampton.—House Physician. Salary £100 per annum, with board, lodging and washing.

YORK DISPENSARY.—Resident Medical Officer. Salary £150 a year, with furnished apartments, coals, and gas.

Births, Marriages, and Deaths.

BIRTHS

BRIGHT.—On May 29th, at Alvaston, Park-hill, Forest-hill, the wife of John M. Bright, M.D., of a daughter.

FARR.—On June 6th, at St. Heliers, Ealing, the wife of Ernest Farr, M.R.C.S., L.S.A., of a son.

GRAY.—On June 9th, at Holsworthy, North Devon, the wife of Walter G. Gray, M.R.C.S., L.R.C.P., of a son.

HUGHES.—On June 5th, at Queen's-road, Wimbledon, the wife of Dr. R. Jaffray Hughes, of a daughter.

JACKSON.—On June 10th, at Hedon-in-Holderness, the wife of John Lowthian Jackson, M.B., C.M. Edin., of a daughter.

MURDOCH.—On June 14th, at 12, St. John's-road, Annan, Dumfriesshire, the wife of William Murdoch, M.D., of twin sons.

THORNTON.—On June 9th, at 14, Cecil-square, Margate, the wife of Mr. Bertram Thornton, of a daughter.

WILLIAMS.—On June 19th, at London-road, St. Leonards-on-Sea, the wife of Arthur Williams, M.A., M.B., of a son.

WILLOUGHBY.—On June 15th, at 1, Queen Anne-terrace, Plymouth, the wife of W. G. Willoughby, M.D. Lond., of a daughter.

MARRIAGES.

BLAIR—LONGWORTH.—On June 9th, at St. Thomas's, Preston, Lancashire, by the Rev. W. J. Lake, M.A., Vicar, assisted by the Rev. W. Hugh Blair and the Rev. A. R. Blair, M.A., brothers of the bridegroom, Charles S. Blair, M.D., M.R.C.S., second son of the late Rev. J. T. Blair, M.A., Vicar of Killingworth, Newcastle-on-Tyne, to Mary Alice, only daughter of J. H. Longworth, of Willow House, Fulwood-park, Preston.

COLLINS—PADMORE.—On June 9th, at St. John the Baptist, Knighton, Leicester, by the Rev. J. Parker, Vicar, assisted by the Rev. J. W. G. Loder-Cother, Vicar of Yapton and Rector of Fora, Dr. E. Collins, eldest son of Dr. J. B. Collins, of Hawthorn Lodge, Yapton, Sussex, to Mabel Stephenson, eldest daughter of J. M. Padmore, Esq., of The Limes, Stoneygate, Leicester.

CROSSLEY—WILLEY.—On June 15th, at St. Mary's, Sheffield, by the Rev. George Crossley, M.A., Vicar of Breedon, Leicestershire, brother of the bridegroom, assisted by the Rev. J. W. Goodall, M.A., Vicar of Dalton, Arthur Crossley, M.R.C.S., L.R.C.P., of Leicester, youngest son of the late C. R. Crossley, J.P., to Lavinia Ellen (Lily), daughter of C. J. Willey, of Edinburgh.

DEATHS.

HARRISON.—On June 6th, at Berkeley-square, Clifton, John Harrison, Surgeon.

HILLIARD.—On June 10th, at Shefford, Bedfordshire, William Henry Hilliard, M.R.C.S., L.S.A., aged 79.

MATTHEWS.—On June 2nd, at Victoria, Vancouver Island, B.C., Joseph Beauchamp Matthews, M.R.C.S., son of the Rev. Andrew Hughes-Matthews, Vicar of Weston-on-the-Green, Oxon.

MCCAULLEY.—On June 11th, at Dublin, Francis Waldron McCaulley, late Surgeon on board Allan Line steamer *Mongolian*.

SKUES.—On June 10th, at Shrublands, Linden-grove, Nunhead, William Mackenzie Skues, M.D., Brigade-Surgeon, A.M.D., Retired, aged 64.

SPRIGGE.—On June 8th, at 1, The Mansions, Earl's Court, S.W., the residence of her brother, S. Squire Sprigge, M.B., Elizabeth Cecil Sprigge, aged 20.

N.B.—A fee of 5s. is charged for the Insertion of Notices of Births, Marriages and Deaths.

METROPOLITAN ASYLUMS BOARD.

Return of Patients remaining in the several Fever Hospitals of the Board at Midnight on June 14th, 1892.

Hospital.	Beds occupied.						Total accommodation
	Scarlet fever.	Diphtheria.	Typhus fever.	Enteric fever.	Other diseases.	Total	
Eastern Hospital	316*	81	..	15	..	412	482
North-Western Hospital	286	64	..	5	1	356	411
Western ,,	116*	30	..	10	2	158	224
South-Western ,,	234	36	..	4	4	278	300
South-Eastern ,,	300	10	1	8	..	319	424
Northern ,,	572	14	..	..	..	586	732
Totals	1824	235	1	42	7	2109	2633

* One infant with mother.

SMALL-POX. *Atlas* hospital ship, 46; *Castalia*, 30. Total, 76.

Medical Diary for the ensuing Week.

Monday, June 20.

ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1.30 P.M., and on Tuesday, Wednesday, Friday, and Saturday at the same hour.
ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations daily at 10 A.M.
ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1.30 P.M., and each day at the same hour.
CHELSEA HOSPITAL FOR WOMEN.—Operations, 2.30 P.M.; Thursday, 2.30.
HOSPITAL FOR WOMEN, SOHO-SQUARE.—Operations, 2 P.M., and on Thursday at the same hour.
METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.
ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.
CENTRAL LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M., and each day in the week at the same hour.
UNIVERSITY COLLEGE HOSPITAL.—Ear and Throat Department, 9 A.M.; Thursday, 9 A.M.
LONDON POST-GRADUATE COURSE.—Royal London Ophthalmic Hospital: 1 P.M., Mr. Wm. Lang: Diseases of the Iris.—Great Northern Central Hospital: 8 P.M., Dr. Galloway: Malignant Growths.—Parkes Museum (Margaret-st., W.): 4 P.M., Dr. A. Wynter Blyth: Disposal of the Dead.
ROYAL COLLEGE OF SURGEONS.—4 P.M. Prof. H. T. Butlin: Cancer of the Scrotum in Chimney Sweeps and others.
NATIONAL ORTHOPÆDIC HOSPITAL (Great Portland-street, W.).—5 P.M. Mr. F. R. Fisher: Paralytic Deformities, Club-foot, &c.

Tuesday, June 21.

KING'S COLLEGE HOSPITAL.—Operations, 2 P.M.; Fridays and Saturdays at the same hour.
GUY'S HOSPITAL.—Operations, 1.30 P.M., and on Friday at the same hour. Ophthalmic Operations on Monday at 1.30 and Thursday at 2 P.M.
ST. THOMAS'S HOSPITAL.—Ophthalmic Operations, 4 P.M.; Friday, 2 P.M.
ST. MARK'S HOSPITAL.—Operations, 2 P.M.
CANCER HOSPITAL, BROMPTON.—Operations, 2 P.M.; Saturday, 2 P.M.
WESTMINSTER HOSPITAL.—Operations, 2 P.M.
WEST LONDON HOSPITAL.—Operations, 2.30 P.M.
ST. MARY'S HOSPITAL.—Operations, 1.30 P.M. Consultations, Monday, 2.30 P.M. Skin Department, Monday and Thursday, 9.30 A.M. Throat Department, Tuesdays and Fridays, 1.30 P.M. Electro-therapeutics, same day, 2 P.M.
LONDON POST-GRADUATE COURSE.—Hospital for Skin Diseases, Blackfriars: 4 P.M., Dr. Payne: Ringworm and its Allies.—Bethlem Hospital: 2 P.M., Dr. Theo. Hyslop: Moral Insanity.

Wednesday, June 22.

NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 10 A.M.
MIDDLESEX HOSPITAL.—Operations, 1.30 P.M.; Saturdays, 2 P.M. Obstetrical Operations, Thursdays, 2 P.M.
CHARING-CROSS HOSTITAL.—Operations, 2 P.M., and on Thursday and Friday at the same hour.
ST. THOMAS'S HOSPITAL.—Operations, 1.30 P.M.; Saturday, same hour.
LONDON HOSPITAL.—Operations, 2 P.M.; Thursday & Saturday, same hour.
ST. PETER'S HOSPITAL, COVENT-GARDEN.—Operations, 2 P.M.
SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN.—Operations, 2.30 P.M.
GREAT NORTHERN CENTRAL HOSPITAL.—Operations, 2 P.M.
UNIVERSITY COLLEGE HOSPITAL.—Operations, 1.30 P.M.; Skin Department, 1.45 P.M.; Saturday, 9.15 A.M.
ROYAL FREE HOSPITAL.—Operations, 2 P.M., and on Saturday.
CHILDREN'S HOSPITAL, GREAT ORMOND-STREET.—Operations, 9.30 A.M. Surgical Visits on Wednesday and Saturday at 9.15 A.M.
LONDON POST-GRADUATE COURSE.—Hospital for Consumption, Brompton: 4 P.M., Dr. Hector Mackenzie: Cases of Mitral Stenosis.—Royal London Ophthalmic Hospital: 8 P.M., Mr. A. Stanford Morton: Ocular Paralyses.
ROYAL COLLEGE OF SURGEONS.—4 P.M. Prof. H. T. Butlin: Cancer of the Scrotum in Chimney Sweeps and others.

Thursday, June 23.

ST. GEORGE'S HOSPITAL.—Operations, 1 P.M. Surgical Consultations, Wednesday, 1.30 P.M. Ophthalmic Operations, Friday, 1.30 P.M.
UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.; Ear and Throat Department, 9 A.M.
LONDON POST-GRADUATE COURSE.—Hospital for Sick Children, Great Ormond-street: 4 P.M., Dr. Abercrombie: Congenital Syphilis.—National Hospital for the Paralysed and Epileptic: 2 P.M., Mr. Victor Horsley: Surgical Treatment of Nervous Diseases.—London Throat Hospital, Gt. Portland-st.: 8 P.M., Mr. G. Stoker: Syphilis of the Throat.

Friday, June 24.

ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.
LONDON POST-GRADUATE COURSE.—Hospital for Consumption, Brompton: 4 P.M., Dr. Hector Mackenzie: Demonstrations of Miscellaneous Cases of Interest.—Bacteriological Laboratory, King's College: 11 A.M. to 1 P.M., Prof. Crookshank: Typhoid Fever, Diphtheria, Rabies, and Tetanus (Sections and Specimens).—Charing-cross Medical School: 8 P.M., Dr. Dakin: Diseases of New-born Child.
ROYAL COLLEGE OF SURGEONS.—4 P.M. Prof. H. T. Butlin: Cancer of the Scrotum in Chimney Sweeps and others.

Saturday, June 25.

UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.; and Skin Department, 9.15 A.M.
LONDON POST-GRADUATE COURSE.—Bethlem Hospital: 11 A.M., Dr. Theo. Hyslop: Lunacy Law.

METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments.)

THE LANCET Office, June 16th, 1892.

Date.	Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Dry Bulb.	Wet Bulb.	Solar Radia in Vacuo.	Maximum Temp. Shade.	Min. Temp	Rainfall.	Remarks at 8.30 A.M.
June 10	29·99	E.	75	65	124	84	58	—	Hazy
,, 11	29·80	S.W.	62	57	113	72	57	—	Cloudy
,, 12	29·90	E.	53	50	62	54	45	..	Overcast
,, 13	30·06	N.E.	58	45	108	61	44	·12	Cloudy
,, 14	30·11	N.E.	50	45	81	57	44	..	Cloudy
,, 15	30·05	N.E.	53	46	110	64	42	..	Bright
,, 16	29·93	S.W.	56	54	88	60	51	..	Overcast

Notes, Short Comments, & Answers to Correspondents.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.

All communications relating to the editorial business of the journal must be addressed "To the Editors."

Lectures, original articles, and reports should be written on one side only of the paper.

Letters, whether intended for insertion or for private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.

We cannot prescribe or recommend practitioners.

Local papers containing reports or news paragraphs should be marked and addressed "To the Sub-Editor."

Letters relating to the publication, sale, and advertising departments of THE LANCET *to be addressed "To the Publisher."*

We cannot undertake to return MSS. not used.

PUBLISHER'S NOTICE.

A SECOND EDITION of THE LANCET, containing a special report of the meeting at the Mansion House which is to be held to-day (Friday) at 3 P.M., in support of the collection to be made on behalf of the Hospital Sunday Fund on Sunday next, will be issued early on Saturday morning.

CENTRAL AFRICAN THERAPEUTICS.

AMONG the adverse agencies with which the medical missionary has to struggle, witchcraft, as a means of prevention or cure, is one of the most formidable. We lately described the inveterate belief of the Spanish Jew in his greater and lesser "indulca"—a charm seen at its best (or worst) in Palestine. We have now to treat of another, the so-called Mwai rite, as practised in British Central Africa. Of this a graphic account has been given by the Rev. Adam Currie, M.A., missionary of the Church of Scotland, stationed at Mount Milanji in the region referred to. Mr. Currie, writing to his father under date April 10th, 1892, says he used to wonder why so few old people were to be seen in the village, till he found the cause of it in the Mwai rite. Death is popularly supposed to be caused by witchcraft. Wizards and witches are believed to charm the life out of human beings in order that, after the victims are laid under the shadow of the thick trees which serve as a cemetery, they may feast on their bodies. When a death has occurred the neighbours call in the witchfinder, who arrives with a bagful "of things horrible and absurd," such as Burns imagined "in Alloway's auld haunted kirk." He then dances himself into a frenzy, rushes to the woods, and there finds the name of the witch. The person he pitches on as thus indicated to him is generally an old, decrepit villager, or someone who is unpopular in the place. The man picked out is then seized upon and forced to drink a poison called "mwai." If he brings up this poison by vomiting, he is held to be innocent and his life is spared; but if the poison stays on his stomach, he is guilty and dies. Small-pox, says Mr. Currie, epidemic in the next village, had caused the death of several children. Recourse, as usual, was had to a witchfinder, who pitched upon a picturesque old worthy, Che Chagula by name, whose grizzled head, white beard, long staff and monkey-skin bag which he always carried were a familiar sight in the mission courtyard. "One morning," proceeds Mr. Currie, "while Dr. Robertson and I were at

breakfast, my boy Gordon came and told me that he had heard the people were going to give "mwai" to Che Chagula that day." They started off at once to save the poor old man. But evidently the people had got wind of their approach and they were repeatedly put off the scent. Not till they were fairly exhausted in the pursuit, under a scorching sun, did they desist from their attempt to interpose between the victim and his murderers, among whom were his own brothers, with their wives and children. In the evening they heard guns firing in Che Chagula's village, "in token of joy that the wizard was dead." The whole narrative, as given by Mr. Currie in a letter which appears in the *Scotsman*, is most touching and brings vividly before the reader the gravity and complexity of the medical missionary's work, in which the healing art has to be practised in spite of the darkest and most sanguinary superstitions, all of which must be removed by moral and religious enlightenment before physician or surgeon can intervene with effect to his patient or with safety to himself.

FOX.—Our correspondent had better apply to Dr. Munk, the librarian. We should suppose that there has been some oversight in the matter.

FRIENDLY SOCIETIES' MEDICAL OFFICERS.

To the Editors of THE LANCET.

SIRS,—By publishing the enclosed circular, a copy of which has been forwarded to the various surgeons connected with these institutions, in your next issue, you will confer a great obligation on a large number of our medical brethren.

I am, Sirs, faithfully yours,

JAS. H. RODGERS, L.R.C.P. & L.R.C.S. Edin.

Lincoln, June 10th, 1892.

"8, Monks-road, Lincoln, 8th June, 1892.

"DEAR SIR,—In course of correspondence we have found that medical officers holding friendly society appointments have grievances. Being obliged to hold such appointments, can we not devise to meet at some central place for the purpose of forming an alliance to mutually benefit ourselves? We are writing to each medical officer for his view on this matter; and, if the majority are favourable, a meeting will be called at some future date, in July or August. The case of Dr. Martin of Stourport should incite us the more in this movement. An early reply will oblige yours faithfully,

"S. WHITWELL, M.B., 8, Monks-road, Lincoln.
J. H. RODGERS, L.R.C.P. & L.R.C.S., 5, Unity-square, Lincoln.
R. ROBERTS, M.R.C.S., L.S.A., Lincoln.
J. PEARSON, L.R.C.P., M.R.C.S., Lincoln.
T. KENNEDY, L.R.C.P., L.R.C.S., Northampton.
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F. F. LYNCH, M.D., Walsall.
E. WATKINS, L.R.C.P., L.F.P.S.G., Nottingham.
W. GIBSON, M.D., Kidderminster.
S. FIRTH, L.R.C.P., L.F.P.S.G., Grantham."

To the Editors of THE LANCET.

SIRS,—Perhaps one of the most flourishing provincial towns at the present time is Reading with its 60,000 inhabitants. Flourishing, also, in its medical aspect. The hospital, with 150 beds and a large number of out-patients (seen three times a week), will bear comparison with any other similar institution, thanks to the influence of THE LANCET in furthering this end. There is a large and flourishing provident dispensary. Also, in addition to this, there is an amalgamated friendly society, which is managed by a committee, who admit members after a medical examination, and appoint the medical officers. At present there is a qualified medical officer receiving £300 a year, house rent free, horse and carriage provided, and all drugs found. There are over 5000 members. As it is impossible for one man to attend to all, there is an assistant appointed by the committee, who is unqualified. He receives £120 a year. I should like you to kindly answer the following questions: 1. How far is the qualified man responsible for the duties performed by the unqualified one appointed, not by himself, but by the committee? 2. Are the committee fulfilling their contract to provide medical aid in sickness if they provide an unqualified man? 3. If this arrangement is unjustifiable, what steps should be taken to remedy it? Thanking you in anticipation of your help,

I am, Sirs, yours faithfully,

Reading, June 13th, 1892. A HOSPITAL SURGEON.

ADMINISTRATION OF ANÆSTHETICS BY DENTISTS.

To the Editors of THE LANCET.

SIRS,—In the case of a fatal accident arising from the administration of chloroform, ether, or gas by a dentist holding a dental licence only, or registered as a dentist, what would be the position of the said dentist? I am, Sirs, yours faithfully,

June 10th, 1892. CHLOROFORM & CO.

*** The practice of administering ether, chloroform, or any of the more dangerous anæsthetics by dentists, whether possessing the L.D.S. or merely registered, is, we believe, uncommon, and where undertaken to be strongly deprecated. The question as to the dentist's legal position should a fatal accident occur under such circumstances duly comes within our province.—ED. L.

A relative Lieut.-Colonel is referred to our Notes in Parliament for this week.

AN APPEAL.

MR. T. CLARK, L.R.C.P. & S. Edin., of Blair, Minehead, and formerly of Dunster, died very suddenly on March 25th, leaving a wife and several children very scantily provided for. A fund is being raised in the neighbourhood for the education of the two youngest children, and any contributions from members of the profession will be thankfully acknowledged by Mr. Ollerhead, Minehead, or the Rev. Y. U. Todd, Minehead, secretary of the fund.

Dr. William Liddon	..	£21	0	0	Mr. F. Hayes	..	.. £3 3 0
Dr. Edward Liddon	..	21	0	0	Dr. Kelly ..	..	.. 2 0 0
Per Medical Brother	..	5	0	0	Mr. Ollerhead	..	.. 2 0 0

"THE USUAL BOND."

To the Editors of THE LANCET.

SIRS,—Will you kindly put me right in this matter? In 1879 I went nto a practice as unqualified assistant, worked hard in it for ten years, and then was obliged to give up owing to want of rest. This I did at Christmas, 1889. I signed some agreement when I entered on duties which was described to me as the usual bond, but I took it for granted that it was usual. I am now told by my late principal that I can come back to him again, but that he will not allow me to in any way practice or assist anyone else in any way within a radius of ten miles. Last summer, when I did three days' duty for another surgeon in the town whilst he was at the seaside, my late principal threatened to prosecute and obtain an injunction. It seems to me such an unfair thing that an unqualified man can be prevented from acting as assistant to another, that I have asked a young legal friend, and he tells me that it is a gross interference with the liberty of the subject, and that many if not all these so-called bonds are useless. I do not want to do anything wrong; but should I be doing so in engaging myself solely as in-door assistant to another surgeon in the town in which my late principal resides, and from whom I have been separated now two years and a half?

I am, Sirs, yours faithfully,

June, 1892. J. R. WHITE.

*** Our correspondent should procure a copy of the agreement, and then consult a solicitor.—ED. L.

FRIENDLY SOCIETIES' AGREEMENTS.

To the Editors of THE LANCET.

SIRS,—I would strongly advise all qualified men, whether as assistants or as medical officers to friendly societies, to refuse to sign bonds of the above nature, unless for a very handsome consideration. As an assistant recently in entire charge of a branch practice, which I in a great measure built up, I was shamefully treated under circumstances which, although too long to relate in this letter, exposed me to the expense of defending a possible action did I disobey an agreement I had signed, and which would, under all the circumstances, have, I feel confident, been disallowed in a court of law. Want of capital and the fact of being married, with a family dependent on me, prevented me submitting my fate to the glorious uncertainty of the law. I had to vacate my position from no fault of my own, and start to make a fresh living elsewhere—always difficult even with capital at command, but much more so *minus* capital and *plus* family. Hence I end this letter as I commenced, by advising a strenuous opposition to all bonds, unless a proper consideration is given. Certainly, the inadequate salary offered an assistant with the chance of finding oneself out of a living in three months is not such a consideration in the opinion of,

Yours faithfully,

June, 1892. ONE OF THE VICTIMS TO PROFESSIONAL GREED.

THE DANGERS OF SELF-TREATMENT.

To the Editors of THE LANCET.

SIRS,—I happened to be in a chemist's shop the other day when a well-dressed, elderly gentleman came in and asked for an ounce of chlorate of potash. The chemist had the curiosity to look at the paper which the gentleman held in his hand and saw written upon it citrate of potash. After an explanation this drug was supplied. Had he been given the chlorate of potash the results might have been serious. Several cases of poisoning have been reported. (Landerer in *Deutsch. Arch. f. Klin Med.*, Bd. xlvii.; Wohlgemuth in *Therap. Monatsch.*, 1890; Vierordt in *Fortsch. für Med.*, No. 4, 1892.)

I am, Sirs, yours faithfully,

Hampstead, N.W., June, 1892. GEORGE PERNET.

INFECTIOUS DISEASES NOTIFICATION ACT, 1889.

To the Editors of THE LANCET.

SIRS,—Is it compulsory under the above Act for both medical attendant and householder to notify presence of an infectious disease? In a discussion on the subject at the local board meeting here it was stated that both must notify. When the medical attendant has done so, it seems unnecessary to compel the householder to do so likewise. By wrongly advising our patients on this point we may expose them to the enforcement of the Act against them, involving the money penalty. I fancy there are other practitioners in the same doubt on this matter as,

Yours faithfully,

Colchester, June 7th, 1892. ENQUIRENS.

PROFESSIONAL ETHICS AND THE MEDICAL COUNCIL.

AN extraordinary handbill, made up of various extracts from THE LANCET and other journals, Mr. Gunn's application for an assistant, &c., with comments, in which the findings of the Council are traversed, has been forwarded to us. We cannot approve of this treatment of a professional man whose case has been considered and adjudicated on by the Medical Council.

Mr. Chas. J. Stocker (Forest Gate).—Our correspondent should take such steps as a solicitor conversant with the facts may advise.

THE CARPENTER AND DUKES FUND.

To the Editors of THE LANCET.

SIRS,—It is proposed to close the above fund on June 30th. Many thanks for your kind and generous assistance in this matter. I regret to say there is a considerable deficiency. Thanking those who have so liberally subscribed to the fund, I shall be pleased to add the names of any who may wish to assist us. Allow me to acknowledge the receipt of £10 10s. from the Council of the South-Eastern Branch of the British Medical Association.—I am, Sirs, yours faithfully,

Croydon, June 13th, 1892. WM. F. COLES.

MEDICAL OFFICERS TO INDIAN RAILWAYS.

To the Editors of THE LANCET.

SIRS,—Will some of your readers kindly inform me how appointments as surgeon or medical officer to the Indian railways are obtained, what the starting salary is, and whether there is any restriction as to age? Any information will greatly oblige, Yours truly,

June 11th, 1892. CANARESE.

COMMUNICATIONS not noticed in our present issue will receive attention in our next.

COMMUNICATIONS, LETTERS, &c., have been received from—The Lord Mayor of London; Rev. J. Anderson, Harlesden; Mr. Acklin, Edinburgh; Mr. Bagley, Basingstoke; Mr. C. W. Browne, Orange Free States; Mr. Bailis, China; Mr. Buck, Leicester; Sir James Crichton-Browne, London; Mr. Barton, Clapham; Mr. Baker; Dr. Craig, Bedford; Mr. Challand, Matlock; Rev. D. G. Cowan, Isle of Dogs; Mr. Cole, London; Dr. Cullingworth; Messrs. Carpmael and Co., London; Mr. Cross, Liverpool; Mr. Crossley, Leicester; Mr. E. A. Culpeck, London; Mr Clark, Wolverhampton; Dr. J. W. L. Cartin, Leith; Messrs. Churchill, London; Mr. H. P. Dunn, London; Mr. A. Faussett, London; Dr. R. Bingston Fox, London; Mr. Freer, Llandudno; Rev. Mr. Griffiths, London; Dr. Ramsford F. Gill, South Hampstead; Dr. Guttmann, Berlin; Dr. Goldsmith, Stone Mountain, U.S.A.; Dr. Headley, Brighton; Dr. Hime, Bradford; Dr. Haviland, Inverness; Messrs. Hopkinson and Co., Notts; Messrs. Hewlett and Son, London; Dr. Harrison, London; Messrs. Krohne and Sesemann; Mr. Edgar Lee, Fleet-street; Mr. Emil H. Lebert, London; Mr. J. J. Marsh, Ormskirk; Mr. C. A. Morton, Bristol; Messrs. Mitchell and Co., London; Dr. Macphail, Derby; Mr. Makins, London; Dr. G. G. Morrice, Homerton; Messrs. Oppenheimer Bros. and Co., London; Messrs. Orridge and Co., London; Sir James Paget; Mr. George Pernet, London; Mr. F. G. Prenge, London; Mr. Richardson, Herne Bay; Mr. Root, Kingston-on Thames; Messrs. Richardson Bros. and Co., Liverpool; Mr. J. H. Rogers, Lincoln; Mr. Rolph, Shepherd's Bush; Dr. R. R. Rentoul, Liverpool; Mr. Chas. Rolfe, London Hospital; Messrs. Robertson and Scott, Edinburgh; Mr. Munro Scott, London; Mr. Stilliard; Mr. A. Q. Silcock; Dr. Stocker, Forest Gate; Mr. Lawson Tait, Birmingham; Mr. Tredennick, Shropshire; Mr. J. Spencer Todd, London; Dr. Welch, Brighton; Messrs. Walker Bros., London; Messrs. Wyleys, Coventry; Messrs. Whitworth and Stuart, Manchester; Mr. Arthur H. Ward, London; Mr. Wilde, Malling Union; Mr. Wilkinson, Dudley; Mr. White, Eythorne; Dr. W. Spence Watson, London; Mr. J. R. Withecombe, Surbiton; Mr. Wells, New Romney; Mr. G. Wherry, Cambridge; Medicus, Mitcham; Sister F., Truro; T. D. A., London; X., London; Manager, Great-Eastern Railway Co.; Urban, London; B., Highgate-road; Secretary, Cardiff Infirmary; Z. S., London; Iota, London; Scalpel, London; Sanitas Co., Bethnal-green; Medical Student, London; C., London; Nurse Monk, Buxton; Lex, London; Doctor, South Woodford.

LETTERS, *each with enclosure*, are also acknowledged from—Messrs. Read and Co., Bristol; Mr. Thompson, Macclesfield; Messrs. Reynolds and Branson, Leeds; Mr. Wheatley, Blackburn; Mr. Hilliard, Caterham Valley; Mr. Irving, Bursiem; Mr. Jenkins, Barry; Messrs. Blondeau et Cie., London; Mr. Lyman, Brooklyn, N.Y.; Messrs. Hughes and Lancaster, Westminster; Mr. Russell, Suffolk; Messrs. Mertens and Co., London; Dr. Skrimshire, Blaenavon; Mr. Murray-Aynsley, New Zealand; Dr. Snow, London; Mr. Wills, Bexhill; Dr. Macnaughton Jones, London; Dr. Aitchison, Wallsend-on-Tyne; Messrs. Squire and Sons, London; Dr. Moore, Colorado, U.S.A.; Mr. Nicholls, Bury St. Edmunds; Mr. Nield, Clifton; Dr. E. Woakes; Mrs. Connop, Aix-les-Bains; Dr. Collins, Sussex; Mr. Breach, Newbury; Mr. Bruce, Dingwall; Dr. MacMunn, Chelsea; Dr. Evans, Beaufort; Mr. Tisley, Wombwell; Mr. Sargent, Sussex; Dr. Thomas, Llanelly; Mr. Potter, Liverpool; Mr. Osburne, Hythe; Mr. Thomas, Bridgend; Dr. Palmer, Sherborne; Mr. Birkenhead, Colville; Mr. Taylor, Airdrie, N.B.; Mr. Norman, Ashburton; Mr. Knowles, Barnsley; Mr. McEwen, Rossshire; Mr Carpmael, London; Mr. Sampson, York; Mr. Hornibrook, London; Mrs. Frith, Epsom; Mr. McLaurin, Glasgow; Mr. Bryden, Shipley; Mr. Buck, Leicester; Mr. Edwards, London; Dr. O'Meara, Southampton; Mr. Johnson, Edinburgh; Mr. Heywood, Manchester; Mr. Cormack, Rotherham; Mr. Cuthbertson, Annan; Dr. Willoughby, Plymouth; J. H. J., London; M.B., Highbury; Secretary, Children's Hospital, Pendlebury; D. H., Deal; X., London; Secretary, South Devon Hospital; H., London; Vase, London; Doctor, Hastings; The Coppice, Notts; Locum, Wilts; Constans, London; Secretary, London Temperance Hospital; Felix, London; Medicus, Nottingham; Lady Superintendent, Hulme District Nurses' Home; Hackney Furnishing Co., London; Gerald, Bowdon; B. C. N., London; Secretary, Notts General Hospital; D. K. S., London; Galen, London; Grove House Private Asylum; Secretary, General Hospital, Bristol; A. W., Herne Hill; Mrs. X., Somerset; Surgeon, London; Smedley's Hydropathic Co., Matlock; P., Liverpool; Delta, London; Secretary, Glamorgan &c. Infirmary; Matron, Dorchester; Secretary, Weston-super-Mare Hospital; X. Y. Z., London; Digitalis, London; Amica, London; M., London; Surgeon, Derby; Secretary, Hull Sanatorium; Medicus S., London; Steward, Carlisle; Omega, London; Alpha, Birmingham; Rusticus, London; Mrs. M., London; B. A. L., London.

NEWSPAPERS.—*Sunderland Times, Health, Manchester Examiner, Liverpool Courier, Devon Gazette, Galignani's Messenger, Leicester Post, Law Journal, Manchester Courier, Observer (Adelaide), Melbourne Leader, Leeds Mercury, City Press, Bristol Mercury, Liverpool Daily Post, New Zealand Mail, Yorkshire Post, Northern Daily News, Westmoreland Gazette, Scotsman, Scottish Leader, Belfast News Letters Glasgow Herald, Local Government Chronicle, Hertfordshire Mercury, Weekly Free Press and Aberdeen Herald, Insurance Record, Mining Journal, West Middlesex Standard, Reading Mercury, Windsor and Eton Gazette, Surrey Advertiser, West London Observer, Sunday Times, Dundee Advertiser, Fulham Chronicle, Bloemfontein Gazette, Local Government Journal, Halifax Guardian, Windsor and Eton Express, Le Temps (Paris), West Middlesex Advertiser, The Million, Times of India, Argus (Melbourne), Pioneer Mail, Cork Examiner, Hong Kong Daily Press, Manchester Evening News, Orkney Herald, South Wales Daily News, Leeds Mercury, Radical Review, &c.*, have been received.

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An original and novel feature of "THE LANCET General Advertiser" is a special Index to Advertisements on pages 2 and 4, which not only affords a ready means of finding any notice, but is in itself an *additional* advertisement.

Advertisements (to ensure insertion the same week) should be delivered at the Office not later than Wednesday, accompanied by a remittance.

Answers are now received at this Office, by special arrangement, to Advertisements appearing in THE LANCET.

Terms for Serial Insertions may be obtained of the Publisher, to whom all letters relating to Advertisements or Subscriptions should be addressed.

THE LANCET can be obtained at all Messrs. W. H. Smith and Son's Railway Bookstalls throughout the United Kingdom. Advertisements are also received by them and all other Advertising Agents.

Agent for the Advertisement Department in France—J. ASTIER, 66, Rue Caumartin, Paris.